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THE ETHNO-BOTANY OF THE GOSIUTE INDIANS.

BY RALPH V. CHAMBERLIN.

The home of the Gosiute Indians was formerly all of the generally desert territory bordering the Great Salt Lake on the south and extending westward into eastern Nevada. To the passing traveller this whole region, before certain favored portions were reclaimed by irrigation, appeared so utterly desolate and uninviting that he must have wondered that any human being should be found there excepting from direct necessity. Yet to the Gosiute this still is, as it long has been, home and native land, and he loves it with a love as ardent as ever burned in the breast of patriot. Away from it he pines; and no thought to him is so harrowing as that the Government may yet force him away to some hated reservation; no suffering so deep as that he bears when he sees his last remaining foothold steadily encroached upon by stockman and rancher. He knows well the haunt and habits of its living creatures; the familiar note of its every bird has become woven into his very life; while from grandparents he knows the quality of root and leaf and seed of its plants, among which he finds food for every season and for every ill a medicine. Nature's severe parsimony in this land forced him to know minutely and to use to the utmost such resources as she had bestowed.

The region is broken by a series of mountain ranges running in a generally north and south direction and rising for the most part from one to six thousand feet above the plateau. Between the ranges are level valleys floored with alluvial gravel, sand and silt, washed and accumulated through many ages from the mountains and charged with the alkaline salts forming so marked a characteristic of the country. In the lower central portions of each valley there is typically an alkaline flat or playa where in the winter season water collects in a shallow sheet and converts the soil into a soft clay-like mud that is "bottomless and impassable." In the summer time the flat is dry and hard and often shows white and glistening from an incrustation of the alkaline salts. The mountains are furrowed with many gulches and narrow canyons which here and there in their courses widen into pleasant, meadow-like basins which are locally termed "parks."

The annual rainfall in the valleys is very low, the precipitation

increasing slowly with the altitude up the mountains. The air is naturally excessively dry, the moisture content being, according to Gilbert, but 45 per cent. of that necessary for saturation, as against 69 per cent. in the region between the Mississippi River and the Appalachian Mountains, and the power of evaporation annually 80 inches, as against 22 inches over Lake Michigan. From the lower ranges the snow that falls generally evaporates without melting or melts without the formation of definite streams. The heavier snows of the higher ranges feed scattered springs and the small streams running down the canyons and out a varying distance into the valleys, where, often after becoming heavily charged with alkali, they sink into the parched soil and are lost. Many of the springs at the bases of the ranges are brackish or salt and some are warm.

The vegetation of this arid region, while generally scant, is more abundant than most would expect; and there is no part even of the valleys in the driest times wholly devoid of plants, excepting some of the playas most heavily charged with alkali, and especially the Great Salt Lake Desert. In these places scattered clumps of the several "greasewoods" occur about the margins. The vegetation of the valleys and slopes as well as of the hills and of much of the mountain sides presents a monotonous uniformity of appearance due to an immense profusion of individuals of but few species. Those most constant and conspicuous are shrubby and suffrutescent plants which occur almost to the exclusion of other forms. No trees are found among them. Grasses grow in tufts, but these die out with the advancing season everywhere excepting in favored recesses and parks of the mountains. Turfing grasses, such as are so conspicuous in parts of the plains region east of the Rockies, do not occur, excepting certain salt forms almost worthless for pasturage and confined to the alkaline meadow lands. As a protection against the intense dryness of the region, the characteristic plants above mentioned have mostly reduced leaves with tough cuticle and often a dense covering of hair. The prevalent color of the vegetation is a wearisome gray or dull olive. Only at long intervals is this monotony of color relieved by the bright green of the richer vegetation of the oases about springs and along

It is impossible for plants of the higher orders to thrive in the strongly alkaline soil in the lower portions of the valleys. The plants growing here belong for the most part especially to the Chenopodiaceæ,

¹ Lake Bonneville, pp. 6 and 7, 1890.

of which one of the best known and most widely distributed is the common greasewood (Sarcobatus vermiculatus). Of similar habit and abundance is Halostachys occidentalis. Along with these, among other abundant plants of the same family, occur Sueda depressa and especially the peculiar glasswort or samphire (Salicornia herbacea), which in marshy saline ground flourishes over wide areas about the Great Salt Lake and forms, with its brightly colored, fleshy stems, a pleasing feature of the landscape.

Farther back from the playas are found the chenopods Eurotia lanata, the white sage, the familiar and excessively abundant Grayia polygaloides, the larger spinescent Shepherdia argentea, several species of Atriplex and others.

Intermingling to some extent with the last-mentioned forms, and beyond the alkaline soil of their preference wholly predominant, is the ever common sage-brush (Artemisia tridentata). This form almost completely usurps the better soil of the valleys and plains and extends far up on the mountain sides. With the sage-brush, over the gravelly foot-hills, are also found Tetradymia canescens, Purshia tridentata and Cowania mexicana. In the swales and other places favored by the drainage Bigelovia is a common plant. The smaller suffrutescent rabbit-brush or torch-weed, Guttierezia, abounds almost everywhere and often forms a conspicuous feature over large areas. Among the Artemisias occur here and there the brilliantly flowered cacti, and, during the early summer, such herbaceous forms as the common Phlox longifolia, various Gilias, Phacelias, Lithospermums and Echinospermums, Œnotheras, Allium, several species of Astragalus, the gaudily flowered Balsamorrhiza sagittata and other Compositæ, with later in the season, in most parts, the beautiful sego lily, Calochortus nuttalli.

The lower mountains, like the valleys, are chiefly destitute of trees and are overgrown with bush and shrub of kinds occurring on the foot-hills or with these, because of the more exposed situation, more scattered and dwarfed. On the higher mountains, however, coniferous woods occur in often wide tracts. At lower levels the cedar (Juniperus) is everywhere common, as at higher levels is the spruce. The nut pine, of so much importance formerly to the Indians, is abundant in certain ranges, of which should be mentioned especially the Deep Creek Mountains. The mountain mahogany (Cercocarpus ledifolius), also much used in earlier times by the Gosiutes, is widespread. Among herbaceous forms common over the mountains are such as Ferula multifida, species of Peucedanum, the much prized Carum gairdneri

and other Umbelliferæ; Castelleia parviflora and Penstemon glaber, Heuchera and Mitella and other Saxifragaceæ; the larkspurs Delphinium menziesi and bicolor; Eriogonums and various species of the Compositæ.

In the canyons containing streams of water occurs a comparative wealth of plants not found elsewhere. Of trees and shrubs growing along the stream margins are various species of willow, the quaking aspen, the cottonwood, the birch (Betula occidentalis), the service-berry or june-berry (Amelanchier alnifolia), the wild or choke-cherry (Prunus demissa), haws (Cratægus rivularis), the kinnikinnic (Cornus stolonifera), the elder (Sambucus racemosa), the maple (Acer glabrum), the sumac or "squaw-berry" (Rhus aromatica) and the wild rose (Rosa californica and nutkana). In the richer soil of canyons and foot-hills the scrub-oak (Quercus undulatus) grows in dense patches. As an undergrowth over the sides of the canyons the box (Pachystima myrsinites) and Oregon grape are common, while various species of wild-current (Ribes), Ceanothus velutinus and other shrubby plants often grow thickly. Of common herbaceous plants growing in favorable places and season may be mentioned such forms as Erythronium grandiflorum, Fritillaria pudica, Smilacina amplexicaulis and other Liliales; Claytonia, Geranium richardsoni, Wyethia amplexicaulis, Mimulus luteus, Mentha and other Labiatæ, Clematis, Aquilegia and others.

In this ill-favored region large game was not relatively abundant, and the Gosiutes could not be primarily a hunting tribe. They seem to have placed no regular dependence upon forms larger than the abundant hare or "jack-rabbit," although when opportunity was propitious they sometimes undertook the securing of antelope and deer. At one side of Mill Creek Canyon, which is in the Wahsatch Mountains and opens into the Salt Lake Valley, there is a mountain valley which, broad and open at its upper part, narrows toward the canyon into a vertically-sided gorge which terminates abruptly at a precipice of great height. Occasionally the Gosiutes resorted to this richer region beyond their proper territory, and at opportune times surrounding deer and antelope would drive them down the valley to the gorge, where the terrified animals, finding retreat impossible. leaped over the precipice to their deaths. From this the Mill Creek Canyon is known to the Gosiute as Tingoup, which means rock or "precipice trap." Some of the older men also tell of a great "trap" artificially constructed in the Cedar Mountains and formerly kept in repair from year to year. This was a great run of V-shape, the sides

of which were walls or fences formed of logs and brush. At the time of a drive all available men and women would make a wide semicircle about antelope or other game that might be in the region and, shouting and continually closing in, would drive the animals to the narrow apex of the run or corral, where hidden hunters easily killed the bewildered game.

While antelope, deer, bear and other large game formed scarcely more than an occasional source of sustenance among the Gosiutes, the jack-rabbit, exceedingly abundant throughout the region, was highly important to them and was regularly a chief dependence in fall and winter for meat, raiment and blankets. After a hunt the meat was dried and preserved, while the skins were dressed and largely twisted into fur ropes. These fur ropes were then bound together to form blankets or articles of clothing which were very warm and serviceable. It was the custom to hold great rabbit hunts or drives every fall. In these drives the entire tribe engaged and were sometimes joined by neighboring bands. The common procedure was to construct of sage-brush, greasewood or other convenient material a great V-shaped run similar to the one described in the preceding paragraph, but of course with lower and tighter walls. At the apex was a hole leading into an underground passage covered or roofed with a hide. The hares were surrounded and driven into the enclosure by the co-operation of men, women and children. As the hares reached the apex of the enclosure they would run into the covered passage, from which they were taken by men stationed for the purpose. Sometimes the hares were merely driven into the heap of brush, where, bewildered and impeded, they were readily killed by means of clubs.

In the spring and early summer the ground-squirrel or spermophile, everywhere present, was trapped or hunted, originally with bow and arrow. It is still sought as food, as which it is much relished. Certain of the larger desert lizards and some snakes were formerly eaten, but these forms are no longer sought for this purpose, although declared to be good tasting.

An abundance of food was furnished at times by the black cricket (Anabrus simplex), several species of locusts and the cicada. The crickets often occurred in vast swarms or "armies." They were not only eaten in season, but were dried and preserved for winter use in baskets or other receptacles covered in pits. A favorite method of cooking fresh crickets was to place them in pits lined with hot stones in which they were covered and left until thoroughly roasted. This dish is really very palatable and is compared by the Indians to the

shrimp, which they accordingly term the aquatic or "fish cricket." Locusts were likewise eaten and were similarly prepared and preserved for winter use. The cicada was eaten both fresh and after cooking. Indian children may still often be seen catching these insects, deftly removing head and appendages, and eating the bodies at once with evident relish.

It was, however, upon the products of the plant kingdom as available in the flora in some of its features outlined above that the Gosiutes placed their chief dependence for food, a fact that led, in the trapper and pioneer days, to their being included under the odious omnibus designation of "diggers." Living close to nature and impelled by strict necessity, they knew the plants of their region with a thoroughness truly remarkable. From root to fruit they knew the plants in form and color, texture and taste and according to season and habitat. Whatever portion of a plant could serve in any degree for food they had found out, and whatever would poison or injure they had learned to avoid. From plants, too, they obtained most of their remedies. which were many, as well as the materials for making most of their household and other utensils. The education of the Gosiute children in a knowledge of these and other matters important to them in their original state was looked after with great care by the grandparents. as among other Indians, the older men and women, because of their longer experience and consequent more extensive knowledge, being looked up to as the natural teachers and advisers in the tribe; but since the change in mode of life consequent upon the coming of the white race this education is much neglected. As a result, the knowledge concerning plants and their properties possessed by the younger generations is much inferior to that of the older men and women now fast passing away.

The Gosiutes ate the leaves and stems of many plants as "greens" after boiling them in water according to the usual custom. Some members of the Cruciferæ and Compositæ containing acrid or otherwise distasteful oils or other principles were sometimes taken through a preliminary course of repeated washings to remove the objectionable taste as far as possible, after which they were cooked and eaten as usual. The leaves and petioles of the arrowroot (Balsamorhiza sagittata), termed ku'-si-a-kĕn-dsĕp, furnished one of the most used and dependable foods of this type. This is a conspicuous and abundant member of the early-season flora throughout the region. The hastate leaves of this plant, mostly radical and forming a tuft, are eight or nine inches long, with still longer petioles, and the flowers are large.

showy heads like those of the sunflower. Cymopterus longipes, an-dzup', is an umbellate widely distributed and abundant like the preceding form. It is an early spring plant with tufted leaves of pinnately decompound form and with umbels of yellow flowers. The leaves of this plant in season furnished a standard and favorite The leaves of the closely related Cymopterus montanus were not eaten, though the rootstocks and proximal portions of the petioles were. Among many other plants of which the leaves were eaten may be mentioned Troximon aurantiacum, mu'-tci-gi, native water-cress (Nasturtium), pa'-mu, and Ranunculus aquatilis, the entire plants of the latter form being used. The entire plant of the cancer-root (Aphyllon fasciculatum), po'-ho-ru, a pale leafless parasite growing upon the roots of the sage-brush and several species of Eriogonum, was also eaten. The stems of the plumed thistle (Cnicus edulis), po'-gwo, as did also in quantity the lower tender stems and root-stocks of the bulrush (Scirpus validus and maritimus), saip. A plant of primary importance to the Gosiute, because it furnished one of their most valued medicines, but which was also the source of a certain amount of food, is Ferula multifida. Only the youngest shoots, just as they were breaking through the ground, were used as food, the ill-tasting older growths being rejected as unusable.

Of the plants that furnished food to the Gosiutes in the form of roots, root-stocks, tubers and bulbs, none is popularly so well known as the beautiful Calochortus nuttalli, si'-go, to the Indians, whence our common name sego, which is the State flower of Utah. The bulbs of this lily were formerly gathered as food. Not only were they eaten in season, but they were preserved in quantity for winter use by being dried and placed in pits like those described below. From these pits they were taken as needed. They were most commonly cooked with meat in "stews." When the Mormons first arrived in Utah and the struggle for food was so severe with them, they learned from the Indians the value of this article, and the digging of the bulbs in the spring did much in many families to stave off starvation.

Another lily furnishing an edible bulb is Fritillaria pudica, wi'-na-go, a yellow-flowered form blooming in the mountains in early spring. It was much less important, however, than the sego. The Camassia, pa'si-go, furnished a more important food of this class and in some sections where more available was extensively used. The bulbs of the wild onions (Allium bisceptrum, etc.), $k\ddot{u}\ddot{n}'$ -ga, and those of the common spring beauty (Claytonia caroliniana), dzi'-na, were also eaten in season, but are said not to have been preserved for winter use.

One of the most highly prized of all food plants among the Gosiutes was Carum gairdneri, yamp or yam'-pa, which occurs in abundance in favorable places in the higher mountains. It grows to a height of four feet and bears rather few pinnately compound leaves. The roots are swollen and tuberous. It is these that are eaten. They are sweet and pleasant to the taste and are nutritious from the presence of an abundance of starchy material. The Indians were very fond of it and still frequently gather it. The usual method of cooking the roots was to roast them in pits lined with hot stones in which they were commonly covered and left overnight. Sometimes they were boiled. These roots were cached in large quantities for winter use.

An industry of the Gosiutes and related tribes very frequently noticed by early travellers was the gathering of the seeds of grasses and of various other plants, a source of food of fundamental importance. While many kinds of plants furnished seeds that were used, by far the greater proportion came from the grasses and members of the Chenopodiaceæ. Few grasses occurring at all abundantly did not furnish them seeds, as those mentioned in due order in the later lists will indicate.

Various chenopods previously mentioned as forming such a predominant and characteristic element of the flora over the valleys and flats furnished a great quantity of nutritious seeds; and in some localities species of Atriplex and Chenopodium in particular, and in wet places Salicornia, appear to have been the chief source of supply. Plants of these genera are so often seen growing thickly over wide areas that they would seem in places to have furnished a food supply limited only by the capacity and inclination of the Indians to harvest Especially Atriplex confertifolia, suñ, is abundant in the alkaline valleys throughout the region, occurring in enormous profusion in the more favorable places so as to have been much depended upon. other species also furnishing seeds is Atriplex truncata, a'-po. brittlewort or samphire (Salicornia hebracea), o'-ka or pa'-o-ka, previously mentioned, is a low, leafless, herbaceous plant with fleshy jointed stems. It has been compared in appearance to branching coral, to living groves of which the resemblance is accentuated by its presenting colors in many shades of p nk, red and yellow. occurs over extensive areas in marshy ground about the shores of the Great Salt Lake and elsewhere throughout the region, often thickly covering the ground for miles where no other plant is found. seeds of this plant when made into a meal and cooked are said to have furnished an article tasting like sweet bread, and one of which the Indians were very fond.

Of Cruciferæ furnishing edible seeds the most important seems to have been the hedge mustard (Sisymbrium canescens), poi'-ya or po'-nak, the seeds of which were gathered and used in the ordinary way, but were also, it is said, after being ground up to have been mixed with snow in the winter time and in this form eaten as a sort of refresh-In the borage family the species of Lithospermum, tso'-ni-baip, more especially, furnished a portion of seeds. Seeds of the mints Drachocephalum parviflorum and Lophanthus urticifolius, both known under the name ba'-gwa-nup or toi'-ya-ba-gwa-nûp, were also regularly gathered. Especially nutritious and important were the seeds beaten from the heads of a number of species of the Compositæ. various others may be mentioned the arrowroot (Balsamorhiza sagittata), previously spoken of as furnishing edible leaves, the related Balsamorhiza hookeri, mo'-a-kûmp, Wyethia amplexicaulis, pi'-a-kĕnds p, Gymnolomia multiflora, mu'-ta-kai, and the sunflower (Helianthus). The familiar arrow-grass (Triglochin maritimum), pa'-na-wi, and the cat-tail (Typha latifolia), to'-ĭmp, are also to be included here. The ripe spikes of the latter were gathered and the bristles were burned off, by which process the seeds were freed and were at the same time roasted.

The seeds of all these and of other plants were collected in approximately the same way. They were first gathered in large baskets commonly about two and a half feet wide by three feet deep and designated by the name na'-pi-o-sa or sometimes as wu'-tsi-a- $n\hat{u}mp$. These baskets were closely woven and were made tight by means of the gum or pitch of the pine by which the meshes were thoroughly filled, as in the case of water-jugs. The ripe spikes or heads of grasses and the seed containing portions of other plants were knocked or swept into this basket (ta'-ni-kûm-ma-wu'-ti-ga) by means of a second smaller basket about the size of a three- or four-quart milk pan and known as Often this da'- $n \dot{q} q^u$ was provided with a handle prothe da'- $n i q^u$. jecting from one side like the handle of a dipper and along the side opposite the attachment of this handle with a flat piece of wood sharpened to an edge like the blade of a knife, its use being to strike against and cut off the fruiting portions of the plants. The large basket might be held in convenient position beneath the taller plants with the left hand, while in the right the smaller one, or da'-niqu, was used to sweep the tops of the plants; but more frequently the na'-pio-sa was carried beneath the left arm or swung upon the back. When in the latter position a quick sweep of the da'-nĭqu was made from right to left across the plants and then up over the left shoulder so as to carry the loosened material into the receptacle.

The materials gathered in the baskets in this way were carried to some convenient and suitable place near the encampment and piled upon the ground preparatory to threshing. This operation (man-gopma-wu-pain, to beat seed vessels, to thresh) was performed simply by beating thoroughly with sticks or paddles until the chaff, pods and other accessory parts were fully loosened from the seeds. tion of the seeds from the chaff and other waste parts, the winnowing, was next accomplished by slowly shaking the threshed material from a special winnowing basket or fan held at a height when the wind was blowing which could carry away the chaff while allowing the seeds to fall more directly to the ground or upon skins spread for the purpose (ma-wi'-a-nin, to winnow). The winnowing basket (tin'-u-wa) was circular or ovate in form and was shallow; being but gently and gradually depressed from the margins toward the center. Larger or heavier materials were separated by hand. At the present time the Gosiutes grow wheat and oats in considerable quantity which they thresh and winnow in this primitive way as do various other Indians. The threshing is sometimes done by means of horses driven round and round in a circle over the cut grain spread out on a floor or upon hard ground, the tramping of the horses accomplishing what is more commonly effected by the pounding with sticks or paddles. The same method is used not only among other Indian tribes in the West, but also among peoples of the Orient.

After winnowing, the seeds were stored in baskets or other appropriate receptacles for winter, the containers being covered in pits in the usual way. Before using, the grain commonly was made into a meal by being ground up by hand in the well-known mortar or mill. Among the Gosiutes this was a flat stone of mostly oblong form (pa'-to) upon which the seeds were placed and pulverized by means of a smaller, mostly subcylindrical stone (du'-su), which was rubbed back and forth over the mortar under pressure. This operation in time resulted in wearing out the mill over the middle portion and leaving an elevated rim along each side, which served the better to keep the grain in place. The meal thus obtained was largely used as a porridge or mush or was baked into crude cakes.

Of high importance to the Gosiutes as food was the fruit of the nutpine (*Pinus monophylla*). The expedition to the mountains each fall for gathering pine nuts was one of the great fixed events of the year; and to this day, when so little dependence is placed upon most of the original sources of their food supply, pine nuts (*ti'-ba*) are gathered regularly in considerable quantity and are kept for use or, to some

extent, marketed among the white people in trade. In visiting the regular Gosiute encampments during the pine-nut season one may feel certain to find them in great part deserted. The method of obtaining the nuts is to gather the cones and partially to burn them in a fire. In this process the nuts are roasted. The nuts are next beaten out of the cones. If further roasting be found necessary, it is carried out by placing the nuts in ovens. The roasted nuts were eaten directly with or without shells or they might be ground up in the mill into a meal. Formerly the nuts, after roasting, were placed in specially made, tall, sack-like baskets in which they were kept in pits or cellars.

The acorns $(ku'-ni-ro-\hat{u}mp)$ of the Rocky Mountain or scrub-oak (Quercus undulata, var.), $ku'-ni-\hat{u}p$, found over portions of this regions, were used as food in season, but they are said not to have been preserved for winter use. They were by no means of the high use to the Gosiutes that the fruit of some oaks are to other tribes, such as those of California.

Of succulent fruits that of the service-berry (Amelanchier alnifolia), ti'-ûm-pi, was probably most important. Not only did it furnish food in season, but it was preserved in large quantities for winter use. For preservation the berries were mashed up, spread out in layers, exposed to the sun and allowed to dry thoroughly. The dried fruit was then placed in pits lined with grass. Immediately over the top of the fruit was placed a layer of the leaves of the sage-brush, the whole being overlaid with cedar bark and covered finally with earth. use in the winter the dried material was broken up in the mill and then boiled either with or without some kind of meat. To this was often added a portion of certain seed meals said much to improve the flavor and general palatability. The native currants (general name, po'-go $n\hat{u}p$) were gathered and preserved in the same way as the serviceberries. Among these currants were the black or Missouri currant Ribes aureum, kai'-i-ûmp, Ribes divaricatum, wī'-sa-po-gûmp, and Ribes leptanthum and lacustre, ai'-go-po-gump. The fruit of the wild cherry or western choke-cherry (Prunus demissa) was similarly used and preserved. The fruit of the raspberry (Rubus leucodermis), tu'-kwûn-dau-wi-a or tu'-kwûn-da-mi, and of the strawberry (Fragaria vesca), $\ddot{a}\ddot{n}'-ka-pa-ri-\hat{u}mp$, were sought and used in season, but no effort was made to preserve them for later use. The berries of the rose (Rosa californica), tsi'-ûmp, were also among the foods.

A number of plants furnished the Gosiutes materials for smoking. Most highly prized among these was the native tobacco plant (*Nicotiana attenuata*), pu'-i-ba-u, a plant growing in dry places to a height

of one or two feet and bearing greenish-white salverform flowers from an inch to an inch and a half long. The leaves, borne on slender petioles and ovate to lanceolate in form, were dried and used as ordinary tobacco. Whether the related Nicotiana quadrivalvis, a native of Oregon and formerly cultivated by Indians from that State eastward as far as the Missouri, was formerly grown and used by the Gosiutes is uncertain. Sedum glandulosum, äñ'-ka-ti-wi-a, Vaccinium cæspitosum, tǐ'-da-kai-mi-ya, and Silene menziesii, yo'-go-ti-wi-ya, also furnished leaves which were similarly dried and used as ordinary smoking tobacco. Ranking in importance with the tobacco plant proper was the kinnikinnic (Cornus stolonifera), the inner bark of which was smoked alone or after mixture with tobacco.

Of beverages the Gosiutes seem to have had but few originally. A kind of tea made from the leaves of the mint (*Mentha canadensis*) is said to have been drunk considerably, pleasing the taste of many. The leaves of the shrub in early days sometimes termed the mountain-tea, tǐn'-ai-hya, were also used for making tea. Another plant termed by the Indians tu'-tom-pi, but which I have not as yet definitely identified among those known to me in the immediate region, is said to possess a wood from which a good beverage was formerly made.

There were a number of chewing gums. One was supplied by the gum of the Douglas spruce (Pseudotsuga douglasii), wañ'-go. Also the latex of Asclepias and of Senecio, among others, was dried and converted into a gum. The chewing gum that seems to have been most prized, however, was obtained from the roots of the greater rabbit-brush (Bigelovia douglasi), si'-bû-pi. The inner part of the root having been rejected, pieces of the outer portion were taken into the mouth and chewed, a gummy substance gradually separating out and the more fibrous material being gradually removed. This gum is sweet and pleasant to the taste. Indian children and their elders as well may still often be seen preparing it.

For the making of baskets, bowls, water-jugs, baby-baskets or cradles, etc., various species of willows, si'-o-pi, such as Salix lasiandra, longifolia and others, supplied a considerable proportion of the material, though, when available, many much preferred the shoots of the cottonwood, so'-ho-pi, because of their greater toughness. For the frame in the several types of basket work, branches of the service-berry (Amelanchier alnifolia), ti'-ûm-pi, were used because of their strength and toughness. Water jugs, cooking bowls, seed baskets, winnowing fans and other vessels, designed to hold water or fine material, were made impervious by being coated on the inside or both

inside and outside with the gum of the nut-pine. A smooth, glasslike inner surface was often supplied to these vessels, as also and more especially to earthen dishes, by coating them with a mucilage obtained from *Malvastrum munroanum*, *koi'-no-kûmp*. This was secured by mashing or mincing the stems and leaves of the plant in water or simply by drawing it with pressure across the surface to be coated.

Bows were most commonly made from the wood of the mountain mahogany (*Cercocarpus ledifolius*), tu'-nûmp, and arrows from the wood of the service-berry. The wood of the kinnikinnic was sometimes used for the frame-work of snow-shoes.

The winter lodges commonly were made almost entirely from the cedar, wa'-pi. The main structure was built in the usual shape of logs and poles of this plant, the whole being thatched with the smaller branches and the bark, the latter being specifically termed i'-na-wa-tsip. For a covering over the ground within the lodges, the bark and finer branches of the cedar or grasses were used. It was, no doubt, Gosiute lodges that Capt. Stansbury saw in 1849 when travelling through Skull Valley on the west side of the Great Salt Lake. He writes: "In a nook of the mountains, some Indian lodges were seen, which had apparently been finished but a short time. They were constructed in the usual form of cedar poles and logs of considerable size, thatched with bark and branches, and were quite warm and comfortable. The odor of the cedar was sweet and refreshing."

Originally the wood of the sage-brush (Artemisia tridentata), po'-ho-pi, was largely used for securing fire by means of friction when it was available, which was the rule. For the same purpose, among others, the dried roots of the following were used: cedar (wa'-pi), mountain mahogany (tu'- $n\hat{u}mp)$ and Shepherdia.

The Gosiutes obtained empirically considerable knowledge concerning the medicinal properties of the plants of this region that was invaluable to them. It may be noted that most of the valuable remedies in our own Pharmacopæia also were first found out and used empirically. Hence it is not so surprising to find that many of the remedies used by the Gosiutes are very closely related to some of those which we have used for the same purposes. But, naturally, superstition among these Indians played a large part, and we find them often going through a procedure or applying a treatment the value of which must be regarded as wholly fictitious.

Superstitious beliefs and practices seem to have prevailed especially

² Expedition to the Great Salt Lake, p. 171.

where animals furnished the material used as medicine or otherwise played a part in the treatment of disease. As one of the less involved cases may be mentioned the procedure in securing rattlesnake oil used for rheumatism. The person having secretly found a rattlesnake must address it in some such way as this: "My good brother, you are powerful; I wish you to help me." The rattlesnake must then be killed by a single shot directed unerringly from bow or gun through the head. The body of the snake was then opened and the fat stripped from within the body into a receptacle, after which the body was buried so as to be seen by no one else, as otherwise the virtue of the oil would be destroyed. The same procedure must be repeated with each snake used. Only when this method had been carefully followed out was the oil when subsequently rubbed upon the affected organ supposed to be curatively effective. As a second example may be cited the procedure supposed by many to effect a cure of persistent nose-bleed. The person affected must secretly take some of the blood from his nose to the nest of the red or occidental ant (Pogonomyrmex occidentalis) into an excavation in which it was poured, so that it would be lapped and eaten up by the ants. No dog or other animal must be allowed to touch the blood. If all had been carefully followed out cessation of the hemorrhage was supposed to follow.

The great majority of the many medicines used by the Gosiutes were products of the plant kingdom, though to a limited number of animal substances and preparations curative properties were attributed. above stated, some of the medicines were of undoubted service, containing active principles identical with or closely related in not a few cases to those used or formerly used by our own practitioners. Often several different medicines might be used for the same ailment or what was regarded as the same, the one selected depending upon season, availability or personal preference. In some cases remedies were combined and given in a mixture, in which case each constituent was supposed to exercise its own particular virtue. Medicines were roughly classified according to their use, the classification being in correspondence with their categories of disease. Thus, medicine for wounds and cuts were classified as i'-a-na-tsu; for bruises and swellings as bai'-gwi-na-tsu; for burns, wai'-a-na-tsu; for coughs and colds, o'-ni-na-tsu; for bowel troubles, koi'-na-tsu; for "worms," wu'-i-na-tsu; for venereal diseases, tim'-bai-na-tsu; for rheumatism, tso'-ni-na-tsu; for the blood, bu'-i-na-tsu; for bladder and kidney troubles, si'-na-tsu, etc.

In setting fractured bones in the limbs sticks of some convenient wood about an inch in diameter and of appropriate length were used as splints. These were tightly bound in place by means of buckskin cords passed from one splint to the next about which it was wound and then passed to the next and so on round and round the limb in a spiral. A padding between and beneath the splints was supplied by the reed (*Phragmites*) or other grass. It is said that a paste mixed with this or some other grass, appropriately cut up, was sometimes used, the whole drying or setting between and beneath the splints and forming about the limb a sort of cast that was rigid and effective. In one case of fracture of the leg observed under treatment by the writer, immobilization of the foot was secured by means of a flat piece of wood tied firmly against the sole by means of buckskin strings passing from the splintwork sheath.

In case of a wound from arrow or gunshot, a paste made by pounding or chewing up the root of the arrowroot (Balsamorhiza sagittata), ku'-si-a-kĕn-dsĭp, previously mentioned among the food plants, was applied. If the hemorrhage was severe, a ligature was applied on the central or proximal side where possible. A tea made by twisting the juice from the roots of Mitella or related forms (to'-sa-na-tsu) was then given internally, the effect being to hasten elimination and purging. Regarded as considerably more efficacious than the arrowroot was the root of Ferula multifida, to'-dzûp, which is strong and rank in taste and smell. It was, and still is, used in essentially the same way as the arrowroot, upon wounds, cuts or bruises where the skin was broken. In case of compound fracture this was the application made to the wound in preference to all others. The root for use, as observed by the author, was first minced with a knife and thoroughly ground to a pulp in a mortar or by crushing upon a clean smooth stone by means of another used as a pestle. The paste was then smeared over the wound and bound in place. It was used in dressing the wound throughout the progress of healing. It seems especially to have been relied upon where there was infection or formation of pus. Among other plants furnishing preparations used on wounds, cuts or sores were Cnicus eatoni, ai'-wa-bo-gûp, and Gilia.

Among remedies supposed to have virtue in taking down swelling due to bruising or other causes may be mentioned first the roots of Valeriana edulis, which were pounded into a pulp and rubbed on externally. Another was made by steeping the roots of Wyethia amplexicaulis, pi'-a-kĕn-dzĕp. The flax (Linum perenne) furnished a preparation used in the same way, as did also the roots of Mentzelia lævicaulis among various others. One informant stated that cases of persistent cedema in the limbs were sometimes treated as follows.

By means of a sharp flint the affected member was cut or gashed in numerous places over the surface from one end to the other and allowed to bleed freely. Next day the limb was ligatured proximally and a vein was located in a favorable position and opened by means of a pointed stick. The blood was allowed to flow from the vein for some time, after which the wound was stopped and the entire limb then covered with a salve made from the roots of *Valeriana* or that constituting some other *bai'-qwi-na-tsu*, and thoroughly bandaged.

For the treatment of burns the most prized remedy was furnished by $Spiræa\ cæspitosa$, a shrubby prostrate plant forming dense mats over limestone rocks and clefts in the canyons. The plant has fleshy roots and short matted branches upon which silky villous leaves are arranged in dense rosulate clusters. The roots after being cleaned and freed of their epidermis by means of a knife were boiled in water until soft and readily reducible to a pulpy mass. This is then ready for use, the wet, pulpy mass being smeared directly in a layer over the burned part and bandaged in place. On fresh burns the pulp or salve was renewed usually four times each day. The remedy is much valued and in cases observed by the author seemed efficacious. A moss (Bryum) is said by some also to have been used on burns. For the same purpose the green wood of the mountain mahogany was also sometimes charred, reduced to powder and, after moistening with water, applied to the wound.

A number of plants furnished materials used as remedies for rheumatism. Such was *Valeriana*, *toi'-ya-bĭt-ûm-ba-ga*, above mentioned, the roots of which are pounded up and rubbed on the affected parts. The common yarrow (*Achilleia millefolium*), *wañ'-go-gĭp*, was also bandaged about affected joints, as were also the steeped leaves of the common sage-brush, *po'-ho-bi*.

Of remedies used for disorders of the alimentary tract there were many. A remedy much valued for intestinal disorders of babies and infants, but also used with adults, often as a secondary treatment in cases of accidents or other bodily trouble, was obtained from the roots of several of the Saxifragaceæ, especially Heuchera, wi'-gûn-dza, and Mitella, pi'-a-näñk. The medicine is purgative in action (koi'-na-tsu). Because of the white color of the roots the preparation is commonly known as to'-sa-na-tsu, meaning "white medicine." It was given in the form of a decoction or tea. Another similar remedy, used especially with children, was prepared from Arenaria triflora, var. obtusa. The wood of the choke-cherry (Prunus demissa), to'-o-nûmp, was sometimes scraped and from the scrapings a decoction made which was

also used in bowel disorder, in children more especially. In some cases an emetic was given to relieve pain and effect restoration. For this purpose the root of *Silene multicaulis* was said to have been used, this being mashed or ground up and drunk in warm water. Another emetic was prepared from the poison sego (*Zygadenus nuttalli*), ta'-bĭ-tci-gop.

In cases where a person was thought to be suffering from worms or other intestinal parasites the gum or resin from $Pinus\ monophylla$, $wa\tilde{n}'-go$, was sometimes put in boiling water and drunk as hot as could be borne.

The roots of *Peucedanum graveolens*, etc., *i'-jaip*, were used as a medicine called from the high value placed upon it *pi'-a-na-tsu*, a word meaning "great medicine." This was used for affections of the throat by being reduced to a pulp and applied directly by means of a finger. Sometimes a string was tied to a piece of the root and the latter then swallowed to be again drawn back out over the affected part by means of the string. A decoction was also made from the root.

For colds, coughs and bronchial affections a favorite remedy was prepared from the leaves of the cedar (Juniperus), wa'-pi. The leaves were boiled in water, the decoction being drunk hot. During the winter season in families where there are children one is still likely to find a pot of cedar tea kept boiling over the fire. A remedy for coughs and the colds and the accompanying headaches, etc., was prepared by some by making a decoction of cedar and sage-brush leaves in a tea from Mentha canadensis, pa'-gwo-nûp. A medicine used for biliousness with severe cold was a mixture of pi'-a-na-tsu, previously mentioned, a laxative or koi'-na-tsu, and the resin of the pine, a decoction of the three being prepared and drunk at intervals.

A tea prepared from the roots of *Lithospermum pilosum* and *longi-florum tso'-ni-baip*, was much used for kidney trouble. It seems to be a strong diuretic. The author has seen it used for this purpose also among the Utes. It is regarded as very effective.

The Gosiutes had a considerable number of remedies severally regarded as efficacious in varying degrees in the curing of venereal diseases and affections in general of the sexual organs. They are termed tim'-bai-na-tsu. Among plants furnishing such remedies may be mentioned Parnassia fimbriata, Spiræa millefolium and Eriogonum ovalifolium. The application was made for the most part externally in the form of a wash or as a preparation in a poultice.

A favorite remedy in cases of fever was furnished by the leaves of the common sage-brush (Artemisia tridentata), po'-ho-bi. This plant

was in early days and in many settlements still is similarly much used among the white people of this region. Indeed, among many it is regarded almost as a panacea, being used for coughs and colds, rheumatism and other ailiments, as well as for fevers, the medicine sometimes being applied externally and sometimes taken internally, depending upon the affection. In intermittent fevers, the white sage (Eurotia lanata), tci'-cop, was considerably used.

Some Features of Word Formation in the Gosiute Language.

The primary stems of the Gosiute language are mostly verbal in character. They are monosyllabic in form and are largely further reducible to significant elementary sounds. The vowel sounds where capable of dissociation in this way represent general modes of motion which are modified or conditioned in definite ways by combination with consonants placed in the initial position. Hence, leaving aside secondary and exotic factors, the vital, active part of the language is found to be especially vivid. The verbs largely define themselves, and it is probably for this reason that it has seemed necessary for each verb or verbal combination to be set off or introduced by a general causal particle, ma.

In the composition of the primary stems to form secondary combinations and words, the more specific particles come first, those expressing the more general notions being final; $i.\ e.$, the first syllables control and restrict the final ones. The combination is thus such as clearly to suggest or to define the action or conception to be symbolized or represented. In verbs the final syllable in the indefinite form is one that signifies some general action or mode of action. N, -in or the more definite -kin are such endings representing in effect, making, producing or simply acting or doing; no indicates general motion or transportation, etc. By means of such endings nouns are readily converted into verbs. When a stem representing a noun in the objective or other relation is incorporated, it occupies the initial position in the verbal combination. Some simple examples of verb formation follow:

a, na, indicates movement or extension out or away from in a straight line, projection, etc.

a'-pi (a'-vi, ha'-bi), a secondary root derived from the preceding root + bi, (vi), meaning primarily to accumulate, to rest upon, etc. Hence a'-pi means to rest or lie upon while extended, to stretch out upon, to lie down. Used separately in speaking of persons the form of the verb becomes ha'-vi-do.

pa'-ha-bi-no, to swim. This word is composed of pa, water, + ha'-bi, to lie or stretch out (as indicated above), + no, indicating motion.

ka'-ri-no, to ride sitting down. Derived from ka'-ri-, to sit down, + no, indicating locomotion as in the preceding combination. Applied to riding in train, wagon, etc., in a general way.

 $p\hat{u}\tilde{n}'$ -ga-ri-no, to ride horseback. From $p\hat{u}\tilde{n}'$ -go, horse, + ka'-ri-no, the preceding word.

ai'-no, to lope. From ai, a root meaning to leap, to spring or to rebound, + no, indicating locomotion as in the preceding words.

 $pa\tilde{n}'$ -go- $\tilde{i}n$, to dive. From pa, water, + go, a root meaning to penetrate, etc., + in.

ki'-wa-tso-kin, to cut with scissors. From -gi'-wa, to bite or cut apart (gi), bite or cut in two, +wa, to press aside or apart, to separate), +tso, squeeze or press together, +kin, explained previously.

gwa'-ci-kĭn, to braid. From gwa'-ci, tail, braid, etc., + kĭn, to make, etc.

ba'-hu-in, to smoke (as a cigarette). From ba'-u, tobacco, +in, explained above.

Nouns, with which we are here chiefly concerned, are readily derived from verbs and verbal combinations through the use of suffixes which, like the verbal endings previously mentioned, designate general or class ideas. Verbs are sometimes employed as nouns without the use of such suffixes. Nouns compounded of simpler nouns or of other words are frequent. In the plant names hereafter given it will be seen that one noun in such compounds frequently bears a possessive or adjectival relation to the principal. In such cases this relation is indicated by the addition of n or of m or by using the particle $\hat{u}n$ or $\hat{u}m$ more discretely. For example:

ni'-am, my, mine. From ni'-a, I, + m.

ai'-tǐn-dain-ti, bore of a gun. From ai'-ti, gun, +n, + dain'-ti, hole. Tǐm'-pǐn-o-gwût, Provo River. From tim'-pi, stone, +n, + o'-gwût, river.

Ai'-bim-pa, Deep Creek. From ai'-ba, clay, +m, +pa, water, stream; i.e., "clay water."

to'-go- $\hat{u}n$ -go-na, Painted cup (Castilleia). From to'-go-a, snake, + $\hat{u}n$, + gu'-na, fire; i. e., "snake fire."

The more important noun suffixes occurring in plant names are indicated below in order.

1. tci, tsi (tc, ts). A common ending in the names of living things

or of the organs or parts of such. In Gosiute it is more frequent in animal names. It also occurs in plant names, but with nothing like the frequency to be noted in the Ute, where it is the commonest ending. Examples:

```
po'-ni-ûts, skunk.
yû'nû-tsi,' badger.
mu'-tu-nats, humming bird.
yu'-ro-gots, Rocky Mountain jay.
du'-ĭ-tci, child, baby.
näñ'-k¹-tci, ear (also as nän'-kûs).
deutc, brother-in-law.
su'-go-pû-tsi, old man.
o'-tci, grandson.
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See further under 3.

2. bi. Indicates a living thing or part of a living thing. In the former case commonly followed by the ending indicated under 1, as represented below under 3. Examples:

bi, the heart.

nam'-pi, foot. From na, indicating support or bottom part, +m, +bi.

pam'-pi, head. From pa, top, summit, +m, +bi.

tim'-pi, mouth. From ti, referring to teeth or a cutting object, +m, +bi.

mam'-bi, hand.

mo'-bi, nose. From mo, indicating protrusion, extension, etc., +bi.

3. bi'-tci, bitc. The preceding stem + the animate ending tci(tc). Indicates a living individual or something regarded as such. Very common in animal names, but only occasional in those of plants. Examples:

```
i'-a-bǐtc, gopher.
mom'-bǐtc, owl.
tu'-ko-bǐtc, wildcat.
we-gom-bǐtc, turkey buzzard.
päñ'wǐtc, fish.
```

4. $\hat{u}p$ ($\tilde{v}p$, -p). One of the commonest endings in plant names. As a noun ending it indicates substance or material or simply thing or object; and, hence, in plant names it is often the practical equivalent of "plant." In some plant names, in fact, the ending is clearly a

modification of o'-pi, meaning wood, tree or plant, rather than the pure suffix $\hat{u}p$.

The regular suffix is mostly added to verbs, though it may also under certain conditions be added to nouns. It is also added to verbs to indicate completion of an action forming one past tense or giving a participial effect. Examples:

 $t\check{\imath}'-k\hat{u}p$, food. From $di'-ka-k\check{\imath}n$, to eat, $+\hat{u}p$.

 $pa'-gin-\hat{u}p$, cloud. From pa'-gin, to make or produce water, $+\hat{u}p$. $wai'-\hat{u}p$, charcoal. From wai'-hin, to burn, $+\hat{u}p$.

 $go'-\hat{u}p$, enclosure, corral, trap, snare, etc. From go, a root in its most frequent sense meaning to surround or to enclose, $+\hat{u}p$. $da'-pi-\hat{u}p$, socks, hose. From da'-pi, foot, $+\hat{u}p$.

5. $\hat{u}mp$. Composed of the possessive $\hat{u}m(m) + \hat{u}p(p)$. The possessive would seem to belong primarily to a preceding noun, but the combination has acquired the character of a largely integral suffix with a definite and peculiar force. It conveys usually the idea of a material used for some purpose. It occurs frequently in the names of plants or of plant products used for food. In some plant names, etc., it is likely the representative of the combination $\hat{u}m + ba$, meaning seed, or +bi, rather than of the combination first indicated above. Examples:

tsi'-ûmp, rose berry. From tsi'-o-pi, the rose (i. e., the plant), + ûmp;
i. e., the part of the plant used for food, the fruit.
po'-gûmp, currant (the berry).
äñ'-ka-ti-wi-ûmp, the sumac berries (fruit of Rhus).

so'-ko-ri-ûmp, the Oregon grape (the entire plant. From so'-ko-ri, deer, + ûmp, the plant serving as food for the deer. wi'-ûmp, haws.

6. na. Used mostly as a prefix to designate a support, source, means or instrument. Examples:

na'-dzi-ta, cane, walking-stick or staff. From na + dsi'-ta, a stick or rod for thrusting, etc.

na'-tse-ya, handle (as of a tea-cup). From na + tse'-ya, to carry.

na'-gwa-na, perfume. From na + gwa'-na-kĭn, to give out a smell or odor.

na'-di-ko, bait. From na + di'-ka-kin, to eat, + go, to enclose, to snare.

na'-dsa-to-wi, shell thrower (of a gun). From na + dsa'-to, to draw or jerk out, + wi, iron or thing of iron.

7. $n\hat{u}mp$. A combination of na and $\hat{u}mp$, the two preceding suffixes. It is a very common noun ending used to indicate means or instrument. Examples:

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ti'-ki-n\hat{u}mp, table. From di'-ka-kin, to eat, + n\hat{u}mp.
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ka'-ri- $n\hat{u}mp$, chair. From ka'-ri-do, to sit down, $+ n\hat{u}mp$.

go'-to- $n\hat{u}mp$, stove. From ma-go'-to, to heat, to make hot, to burn, $+ n\hat{u}mp$.

 $tso'-ti-gi-n\hat{u}mp$, pillow. From tso, particle referring to the hezd, + ma-ri'-gi, to lay or place upon, + $n\hat{u}mp$.

go'-ti- $n\hat{u}mp$, spear. From ma-go'-tin, to stick or thrust into, $+ n\hat{u}mp$.

Some words recurring frequently in plant names may next be listed. In compounds, of course, these words do not occur as a rule in their entirety, but are represented by one or more of the more significant syllables.

As examples of words frequently entering into names to indicate a color characteristic the following may be listed. The form within parentheses represents the syllables ordinarily appearing in compounds.

```
to'-si-bǐt(to-sa-), white.

tu'-o-bǐt (to), black.

äñ'-ka-bǐt (äñka), red.

pu'-i-bǐt (pui), green.

o'-a-bǐt (oa), yellow.

on'-ti-gait (onti), roan, etc.
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ku'-tsĭp (ku-tsi), ashen, gray, etc. Meaning primarily ashes and used in plant names especially to indicate the ashen or grizzly appearance due to thick growths of pubescence, etc.

Words indicating habitat occur with especial frequency in plant names.

ku'-tsĕp. In addition to the force above explained, this word, in combination, may also indicate growth as being in dry soil, etc.

```
pa, water.

tǐm-pi (tǐm-pi, tǐn, tǐ), rock.

toi'-ya-bi (toi-ya), mountain.

toi'-ya-wünt, canyon.
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The two following are very frequent in names of plants where it is desired to indicate size, especially where there are several closely related forms to be discriminated and size represents a prominent difference.

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pi'-ûp (pi-a, pi), large, tall.
ti'-ai-qŭ-tsi, ti'dŭ-tsi (ti-a, tĭ-da), small, short, etc.
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Naturally we find in plant names syllables representing or indicating some particular part or feature of the plant.

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ba, bi-a, seed, fruit.
gûp, pod, seed vessel, fruit.
o'-pi, wood.
a'-ka, si'-a-ka, stem, shoot, etc.
si'-gi, leaf.
wa'-tsip, bark.
ai'-go-gûnt, thorn.
ai'-di-wis, wi'-sa, spine, prickle.
```

A few of the more frequently occurring words used in plant names to indicate relations or characters other than those indicated above are these:

```
na'-tsu, medicine.

\check{\iota}'-ca, wolf, and, secondarily, false.

wu'-da, bear.

p\hat{u}\tilde{n}'-qo, horse.
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tai'-bo, white-man, this being frequent in names more recently devised to indicate forms introduced into the region since the advent of the whites.

The more general terms used by the Gosiutes to indicate plant groups were largely and primarily indicative of habitat, the ecological relations seeming most obtrusive to their minds. Next to the ecological relations, the economic seemed to have influence and we find groupings based upon uses in medicine and as foods. As examples of names applied to plants according to habitat may be mentioned the following.

pa'-bu-ip, applied to any plant floating upon water. From pa, water, +bo(po), root, indicating position upon surface of, floating, rising, etc., $+-\hat{u}p$ or possibly o'-pi.

 $t \check{t} m'$ -bo-ip, applied to any plant growing upon or over rocks, etc. From $t \check{t} m$, referring to rock as above explained, + bo, as in the preceding, + - $\hat{u}p$.

toi'-ya-da-tsip, applied to a shrub growing on mountain or in canyon. pan'-di-sip, applied to a plant growing submerged in water. From pan, aquatic, +dl'-si-, meaning to penetrate or thrust into or beneath, +-ap. It is also applied to animals, such as water-beetles, living beneath water.

CATALOGUE AND VOCABULARY.

In the case of the great majority of the plants dealt with in these pages, the Gosiute names have been tested repeatedly in order, so far as possible, to eliminate errors and to determine the standard and pure as distinguished from the occasional and extraneous. The work has been carried on largely as recreation at different seasons of the year; and at these various times tests have been made through various better informed men and women of the Skull Valley division of the tribe, these being consulted both singly and in groups. However, there remains a certain number of species the names and uses of which I have not as yet been able to test in a way wholly satisfactory to myself.

The Gosiute plant names, like our own popular ones, with which they are properly to be compared, are frequently generic rather than specific in compass and, naturally, may sometimes apply to species lying in technically different though usually closely allied genera. some cases they are the practical equivalents of popular English names, while in others they are distinctly different in scope from these or may be without any name in our language at all corresponding, for a large proportion of the native plants in the West are as yet without popular designations of any sort. It often happens that one single kind of plant is known under two or more names to the Gosiutes. cases one name is commonly more comprehensive than the other and applicable likewise to various other related or supposedly related forms, while the other may be strictly applicable only to the species under consideration. Then, again, the same plant may be regarded from different points of view, classed on correspondingly different bases, and so come to be designated under several class or generic names indicating these several relations. Thus, it may be regarded as to its habitat, as to its structure or appearance, as to its service to man or animal as food, or as medicine, etc. It may bear a different name indicative of each of these relations in addition to that which may be regarded as in a measure specific and restricted to it alone. The restriction in use of a name depends much upon the commonness or importance of the plant, there being different names even for closely related species in many cases—proportionately much more numerous than is the rule among our own people.

In ordinary conversation among the Gosiutes a long plant name may frequently be shortened through the omission or dropping out of one or more syllables. Such abbreviations may result in changes in the remaining syllables thus brought into different relations to each other through the operation of definite phonetic laws, as of rhythm in quantity, etc., which cannot be here considered. There may thus result from one original name several current forms.

The values of the letters used in recording Gosiute words in the present paper are approximately those of the Smithsonian alphabet and are essentially as follows:

- a is pronounced as in far or as in the German lachen.
- ä is sounded like a in the English word fat, etc.
- e is pronounced as in they or as in the German Dehnung.
- ĕ is pronounced as in then or as in the German denn.
- i is pronounced as in pique or as in the German ihn.
- I is sounded as in pit or as in the German dick.
- o is pronounced as in vote or as in the German Bogen.
- u is pronounced as in rule or as in the German du.
- û is pronounced as in but.
- ü is pronounced as in the German müde or as u in the French lune.
- ai is sounded as in the German Kaiser or as i in bite.
- oi is pronounced as in boil.
- c is pronounced like sh in shall, etc.
- d, f, h, k, l, m, n, p, r, s, t, y and z are given their ordinary sounds in English.
 - g is pronounced as in gig or as in the German geben.
 - ñ is pronounced like ng in sing.
 - q is pronounced like ch in German lachen, Dach, etc.
 - dj is pronounced like j in judge.
 - tc is pronounced like ch in church or like c in the Italian cielo.

Nasalized vowels are indicated by a small superior n; thus a^n , etc.

Attention should be called to the essential equivalence and, within the limits marked by certain phonetic rules, the interchangeability (1) of k and g; (2) of t, d, and r; and, less completely, (3) of n and m. Of the letters or sounds of the second group, t is most commonly initial in position and r and d internal.

LATIN OR SCIENTIFIC NAMES WITH POPULAR AND GOSIUTE EQUIVALENTS.

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Acer glabrum Torr.Maple.Abies menziesii Lindl.Balsam.pa'-go-ni-ûp.sa'-nañ-go-bi.[Probably from pa, water, +[sa-na-, gum, pitch, etc., +ku'-ni-up, oak.]an'-go-bi, spruce.]
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Abronia fragrans Nutt. Sand Puff.

ta'-ka-dĭ-da-rûp.

Achillea millefolium L. Yarrow. wañ'-go-gĭp.

Used commonly among the Gosiutes in the form of a tea for biliousness, headache, etc. Also applied externally for rheumatism and sometimes on bruises.

Aconitum fischeri, etc. Monks-hood; Aconite.

Y-ca-bo-gop.

[Probably from V-ca, wolf, and secondarily, deceptive, false, baneful, + bo-gop, fruit, berry, the name referring to poisonous properties as a result of which horses eating it sometimes die.]

Acorn.

ku'-ni-ro-ûmp.

[ku'-ni- $\hat{u}p$, oak, $+ ro + \hat{u}p$.] See further under Quercus.

Actœa spicata L. Baneberry. toi'-ya-ba-gwo-no-gip.

Agaricus sp. Mushroom. so'-ai-tûmp.

Agropyrum repens Beauv. Bluejoint.

o'-ro-rop.

o'-ro.

o'-do.

The seeds of this grass were among those formerly used as food.

Allium bisceptrum Watson and acuminatum Hook. Wild Onion.

küñ'-ga.

Bulbs eaten in spring and early summer. Not preserved for later use.

Alnus incana Willd. Alder. u'-gu-dzûp.

Alopecurus aristulatus Mx. Foxtail grass.

tĭ'-so-nĭp.

 $t\tilde{i}-+so'-nip$, grass.

Amarantus sp. Amaranth.

ats.

Seeds formerly eaten. Constituted an important source of food.

Ambrosia psilostachya DC. Ragweed.

tu'-ro-sip.

[The name seems to mean black sap; tu'-o-bit, tu'-ro-vi, black, + sip, sap, juice, etc.]

Occasionally used as a remedy for sore eyes. For this purpose the leaves were steeped in hot water and bandaged over the affected organ. The same name was often applied to *Iva axilaris*, *q. vid*.

Amelanchier alnifolia Nutt. Service-berry; June-berry.

ti'-ûm-pi.

The berries formed a very important source of food among the Gosiutes, being used both in season and preserved in large quantities for winter use. For preservation the berries were mashed and dried as

previously described. If the berrying grounds were not too far distant from the winter encampment, the dried berries were cached on the spot to be obtained during the winter as needed or to be transported at a more favorable time to a more accessible position.

This plant also furnished the material preferred for arrows and for the framework of cradles and other forms of basketry.

Amsinckia tesselata.

ku'-hwa.

tso'-hamp.

Seeds formerly eaten.

Anaphalis margaritacea Benth. and Hook. Everlasting. mo'-ha-gûp.

 $And rosace\ septentrional is\ L.$

? ka'-na.

Cf. Lewisia.

Anemone multifida Poir. Windflower.

toi'-ya-mo-ha-gûp.

Angelica pinnata Watson.

pa'-si-gwûp.

Occasionally spoken of as ku'-i-gwa- $n\hat{u}p$, but incorrectly so, according to best informed Indians.

Roots used as medicine.

Antennaria dioica Gaertn. Everlasting.

toi'-ya-na-tsu.

[toi'-ya-bi, mountain, + na'-tsu, medicine.]

?ku'-yi-ko-nûp. ku'-yi-gwa-nûp.

Said by one informant to have been used in cases of snow-blindness, being steeped in water and bandaged over the eyes. The first name is probably not wholly specific.

Aphyllon fasciculatum T. and G. Cancer-root.

po'-ho-ru.

[po'-ho-bi, sage-brush, + ru, ru'a, son.]

The name is given in reference to the fact that this plant is commonly found growing parasitically upon the roots of the sage-brush; hence, "son of the sage-brush."

The entire plant was sometimes eaten.

Aplopappus macronema Gray and parryi Gray.

tĭm'-bi-mo-a-gwa-nûp.

Aplopappus suffruticosus Gray (sometimes also macronema, the preceding form). toi'-ya-ba-hwip.

toi'-ya-ba-o-pi.

The name means in effect simply "mountain plant," and is not wholly specific.

Apocynum androsaemifolium L. Dogbane; Indian Hemp. wu'-da-wa-nûp.

[wu'-da, bear, + wa'-nup, rope, string, fiber, etc., the name referring to the

strong fiber obtainable from this plant.]

Fiber of hemp obtained from. Cf. name Indian Hemp.

Aquilegia coerulea James. Columbine.

pa'-wa-gúmp. pa'-o-gûm-pi.

Informants stated that plant furnished a medicine that acted on the heart. Seeds were sometimes chewed as medicine; and a tea made from the roots was used for abdominal pains and when one was "sick all over," as it was broadly put.

Arabis holboelli Hornem. Rock Cress.

si'-bo-i-ûp.

Cf. Cleome lutez, to which the name is also applied.

Arabis retrofracta Grah. Rock Cress.

pi'-a-poi-na.

pi'-a-si-bo-i-ûp.

 $[pi'-\hat{u}p, \text{ big, large, } + si'-bo-i-\hat{u}p.]$

Arctium lappa L. Burdock. mu'-pa-tai-gi-nûp.

The burdock is an introduced plant, and the name above given is used only by a limited portion of the Gosiutes, having been formed rather recently.

Arenaria biflora. Sandwort. tim'-bo-ip.

This is a very general term

indicative of habitat as previously explained.

Arenaria congesta Nutt. Sandwort.

Classed as a *koi'-na-tsu*, or bowel medicine.

Arenaria triflora var. obtusa Watson. Sandwort.

wi'-dcan-gwo-dcop.

[wi'-dca, pine-hen, + n, + gwo'-dcop.]

toi'-yan-tim-ba-dzap.

Like the preceding, classed as a *koi'-na-tsu*.

Argemone mexicana var. hispida Gray. Prickly Poppy.

pa'ra-tĭ-tsĭn-bo-gop.

toi'yan-bo-gop.

Apparently a somewhat general descriptive term.

Aristida purpurea Nutt. Tripleawned Grass.

yo'-nĭp.

o'-gwip.

toi'ya-o-gwĭp.

[toi'ya-bi, mountain, + o'gwĭp.]

Arnica cordifolia Hook.

ta'ni-kûmp.

Arnica parryi Gray.

mo'ha-gûp.

Cf. Anaphalis.

Artemisia biennis Willd.

pi'a-wa-da.

 $[pi'\hat{u}p + wa'da.]$

wa'da.

on'tim-pi-awa.

on'tim-pi-a-wa-da.

[on'tim, brown, roan, + pi'a-wa-da.]

The seeds formerly exten-

sively gathered and used as food.

Artemisia discolor Dougl. and trifida Nutt.

ku'tsi-pa-wa-tsĭp.

ku'tsi-pa-wats.

ku'tsi-pa-hwats.

[ku'tsĭp, ashes, ashen or gray, etc., + pa'wa-tsĭp, or its shortened forms, pa'wats or pa'hwats, as in the name of the following species.]

Seeds formerly eaten as with the preceding form.

Artemisia dracunculoides Pursh. pa'wats.

pa'hwats.

The seeds of this plant are oily and nutritious. Formerly much gathered as food. Said to have formed a favorite dish.

Artemisia tridentata Nutt. Sagebrush.

po'ho-bi.

A tea made from the leaves of this excessively abundant plant was much used as a medicine in febrile conditions, etc. The leaves were also used as a covering over berries and other foods preserved in caches.

Asclepiodora decumbens Gray. ? pi'wa-nûp.

A chewing gum said to have been made from latex.

Aster adscendens Lindl. Aster; starwort.

pa-oto'-ga.

Astragalus iodanthus Watson. Rattle-weed; Buffalo-bean. na'da-pa-ra-na-günt.

da'pa-rai-nûmp.

The name refers to the shoeshaped legumes.

Astragalus junceus Gray. Rattleweed.

One of the $p\hat{u}\tilde{n}'go$ -na-tsu or horse medicines, as which it is said to have been valued. The name is from $p\hat{u}\hat{n}'go$, horse, and na'tsu, medicine.

Astragalus utahensis T. and G. Rattleweed.

to'sa-wu-da.

[to'sa, -to'si-bĭt, white, + wu'da, bear, a name apparently suggested by the dense white woolly covering of this plant and its legumes.]

ti'a-sa-ton-dzi.

Atriplex canescens James.

dsi'cûp.

Seeds eaten.

Atriplex confertifolia Watson. suñ.

su'no.

?ka'nûm-pi.

The seeds were formerly eaten, this and other species of Atriplex forming one of the most important sources of seed food. This and the related forms frequently occur in the region over great areas. The seeds were gathered in the same

manner as those of grasses as previously described.

Atriplex truncata Torr.

a'po.

Seeds used as food as with the preceding species.

Avena sativa L. Oat.

o'a-tûmp.

Apparently from English oat $+ \hat{u}mp$.

Balsamorrhiza hookeri Nutt.

o'a-kûmp.

?mo'a-kûmp.

a'kĕn-dzĭp.

wi'a-kĕn-dzĭp.

Seeds used as food.

Balsamorrhiza sagittata Nutt.

Arrowroot. ku'si-a-kĕn-dzĭp.

 $[ku'ts\check{v}p, ashen, gray, + a'k\check{v}n-dz\check{v}p.]$

ku'si-ak.

Shortened form of the preceding word.

a'kĕn-dzĭp.

This brilliantly flowered plant, which is abundant over the hills and mountain sides throughout the Gosiute territory, formerly of much economic importance to them. the spring the large leaves and their petioles were boiled and eaten. Later. when the seeds were ripe, these were beaten out of the heads into baskets and used as food as in the case of those of Helianthus. The root was used as a remedy upon fresh wounds, being chewed or pounded up and used as a paste or salve upon the affected part.

Bark.

wa'tsĭp.

Beckmannia cruciformis Host. Slough Grass.

u**′gû-**pi.

u'gûp.

Berberis repens Lindl. Oregon Grape.

so'ko-ri-ûmp.

[so'ko-ri, deer, + ump, indicating food, etc. Hence "deer food."]

Berula angustifolia Koch.

a'tam-bĭ-tcûp.

Betula occidentalis Hook. Birch. u'di-ûp.

Bigelovia douglasii Gray. Rabbitbrush; Rayless Goldenrod.

si'bû-pi.

The chewing-gum most highly valued among the Gosiutes was prepared from this plant as previously described.

Bigelovia pulchella Gray. Rabbitbrush; Rayless Goldenrod.

ta'bi-si-bû-pi.

[ta'bi, sun, + si'bû-pi, a name of B. douglasii, the preceding species, regarded as the typical Bigelovia.]

ta'bi-si-pomp.

[ta'bi, sun, + pam'pi, head]

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"sun-head."
       (probably);
                                           dried and preserved for
                                           winter use in the usual
       Cf. our name sun-flower.]
                                           type of pit or "cellar."
Branch (shoot).
  si'ûñ-gûn.
                                    Camassia
                                                  esculenta
                                                                Lindl.
  si'a-ka.
                                           Camass.
Bromus breviaristatus Thurb., etc.
                                      pa'-si-go.
       Brome Grass.
                                         As with the preceding form,
  to'bai-bi.
                                           the bulbs of this plant were
  to'pai-bi.
                                           formerly a prized source
                                           of food. The bulbs of this
  to'ho-bai-bi.
  to'ho-bi.
                                           plant were likewise pre-
    Seeds formerly eaten.
                                           served for winter use.
Brizopyrum spicatum Hooker.
                                           They were usually cooked
  ku'so-nĭp.
                                           by roasting in pits lined
Bryum sp. Moss.
                                           with hot stones.
  so'-go-ba-gwĭp.
                                    Cardamine cordifolia Gray. Bit-
  so'-ko-ri-bo-ûmp.
                                           ter Cress.
    [In the first name so-go
                                      ?mo-a-gwa-nûp.
       means earth. In the sec-
                                    Carex hookeriana Dew.
                                                             Sedge.
       ond so'-ko-ri means deer.
                                      ai'bi-baip.
       the reference being to the
                                        [Prob. ai'ba, clay, + baip
       eating of the moss by this
                                           (?from ba + \hat{u}p).]
                                    Carex jamesii Torr., fistira, muri-
      animal.]
                                           cata, etc. Sedge.
Bud.
  ĭ'-gi-si-a-ka.
                                      pa'gi-gĭp.
    [From I-gi, present, initial,
                                    Carex utriculata Boott.
                                                            Sedge.
      si'-a-ka, sprout, branch,
                                      pa'gi-gĭp.
      etc.]
                                      pai'gĭp.
Calochortus nuttalli Torr. and Gray.
                                      ai'bi-baip.
      Sego.
                                        [ai'ba, clay, + pa, water, +
  si'-go.
                                          -\hat{u}p.
    The common name for this
                                        Children sometimes eat lower
      attractive lily is taken
                                          tender stems and parts of
      from the Indian name. In
                                          roots.
      the spring and early sum-
                                    Carex sp. Sedge.
      mer the bulbs of the sego
                                      pa'ra-wĕ-ce-gop.
      were formerly much used
                                        Roots rarely used as medi-
      as food by the Gosiutes,
                                          cine.
      constituting a standard
                                    Carum carui.
      source at that time of the
                                      a'pa.
```

?tĭn'ta.

year. The bulbs were also

Carum gairdneri Benth. and Hook. yam'pa.

yamp.

The fleshy roots of this plant furnished a food very important to the Gosiutes and related Indians and one of which they were especially fond. The plant is widely distributed and occurs abundantly in the mountains. The roots were commonly prepared by roasting in a pit lined with hot stones. They were preserved in quantity for winter use.

Castilleia miniata Dougl. Indian Paint-brush; Painted Cup. koi'di-gĭp.

Also spoken of sometimes as to'go-un-go-na; but this name more frequently restricted to the next species.

Castilleia parviflora Bong. and minor Gray. Indian Paintbrush; Painted Cup.

to'go-ûn-go-na.

[From to'go-a, snake, rattle-snake, $+\hat{u}n$, $+g\check{u}n$, gu'na, fire. Hence, "snake fire."]

Catkin, pistillate, of willows, etc. bi'a-gĭnt.

[Apparently bi'a, ba, seed, etc., +kin, +t.]

Catkin, staminate, of willow, etc. Y'dcûm-ûm-bu-i.

Ceanothus velutinus Dougl. New Jersey Tea.

a'di-rûm-bĭp.

a'di-rûm-bĭp-äñ-ka-sip.

[a'di- $r\hat{u}m$ -bĭp + \ddot{a} $\ddot{n}'ka$ -bĭt, red, + sip.]

Cercocarpus ledifolius. Mountain Mahogany.

tu'nam-pi.

tu'nûmp.

The wood of the mountain mahogany was the favorite material among the Gosiutes for bows. Powdered charcoal made from the green wood was used by some on burns.

Cercocarpus parvifolius Nutt.

Mountain Mahogany.

tu'hi-nûp.

Chaenactis douglasii Hook. and Arn.

 $wa \tilde{\mathbf{n}}'\mathbf{g} \tilde{\mathbf{i}} \mathbf{n} \text{-} \mathbf{g} \tilde{\mathbf{i}} \mathbf{p}.$

?ko'si-bo-qûn-tos.

Sometimes minced or mashed up and rubbed on limbs, etc., for soreness or aching.

Chenopodium capitatum Watson. Goose-foot; Pigweed.

kûm'ûn-tsi-a.

[Prob. $k\hat{u}m$, rabbit, $+\hat{u}n$, + tsi'a.]

??pa'gwo-nûp.

Seeds formerly gathered for food, this species being the source of a large supply.

Chenopodium leptophyllum Nutt. Pigweed; Goose-foot.

i'û-pi.

Seeds served as food as with the preceding species.

Chenopodium rubrum L. and capitatum Watson. Pigweed; Goose-foot

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on'tĭm-pi-wai.
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[on'ti-gait, roan, etc., the name referring to color of ripe fruiting.]

kûm'ûn-tsi-a.

Seeds formerly eaten.

Chrysopsis villosus Nutt., etc. Golden Aster.

toi'ya-dĭ-sas.

[toi'ya-bi, mountain, etc., + dĭ'sas.]

? tu′go-wa-tsĭp.

Cinna arundinacea var. pendula Gray. Wood Reed Grass. to'bai-bi.

Seeds gathered for food.

Claytonia caroliniana var. sessilifolia Torr. Springbeauty.

dzi'na.

Bulbs used as food. The same name is sometimes applied to the cultivated potato (vid. sub Solanum).

Claytonia perfoliata Donn.

pa'gwo-dzûp.

?pa'bu-ip.

The second name a general term designating habitat, as previously described and probably not correctly applied to the present species.

Clematis douglasii Hook. Clematis; Virgin's Bower.

o'bĭn-da-ma-nûmp.

?a'ra-si-mu.

Clematis ligusticufolia Nutt. Clematis; Virgin's Bower. o'bĭn-da-ma-nûmp.

Furnished a medicine.

Cleome integrifolia Torr. and Gray. a'na-gwa-nûp.

bĭ'tci-gwa-nûp.

Leaves formerly pounded up in water and applied as a remedy to sore eyes.

Cleome lutea Hook.

si'bo-i-ûp.

Occasionally spoken of under the same name as the preceding.

Cnicus drummondi Gray. Plumed Thistle.

tĭn'tsĭñ-ga.

tsĭñ'ga.

tsi'na.

Portions of stems formerly eaten.

Cnicus eatoni Gray. Thistle.

po'gwo.

po'go.

ai'wa-bo-gop.

ai'gwa-bo-gop.

Also sometimes spoken of under second name of the and its variants.

Used as a remedy on cuts and sores. Stems eaten. Probably the thistle most used as food.

Cnicus undulatus Gray. Plumed Thistle.

pa'bo-go.

Also as tsĭñ'ga, etc. Stems eaten.

Commandra pallida A. DC. Bastard Toad-flax.

tIm'bo-ip.

A general term.

Cornus stolonifera Michx. Kinnikinnic; Dogwood. äñ'ka-kwi-nûp.

äñ'ka-koi-nûp.

[Cf. the Shoshoni $\ddot{a}\tilde{n}'ka$ -sib. The name refers to the red color of the shoots.]

The inner bark of this plant, commonly called most kinnikinnic in the West, was formerly much smoked as tobacco. It was often mixed with ordinary tobacco when the latter was procurable. Its effect was mentioned by one Gosiute as being not a little like that of opium. The wood was sometimes used in the making of snow-shoes.

Cone, of Pinus.

ti'ba-ûn-gop.

The name is from ti'ba, pine nut, +un, +gop, pod or seed-vessel.

Cowania mexicana Don. Cliff Rose.

hi'na-bi.

Leaves used as medicine.

Cratægus oxycanthus. Thorn. bi'tcip.

Cratægus rivularis Nutt. Haws. wi'ûm-pi. wi'ûmp.

Crepis glauca Torr. and Gray. mu'tei-gi.

mu'tci-gĭp.

mu'ha-ti-bu-i.

Leaves said sometimes to have been eaten.

Crepis occidentalis Nutt. mo'a-mu-ĭ-tci-gĭp. mo'a-mu-ĭ-tci-gi.

Cymopterus longipes Watson. an-dzûp.

[Cf. Shoshoni toi'yan-dûp.]

The leaves of this plant, so abundant and widespread in this region, formed a common article of food in the spring. They were prepared by boiling.

Cymopterus montanus Torr. and Gray.

tu'na.

Seeds and underground parts eaten, but not the leaves, as was done with the preceding form.

Cystopteris fragilis Bernh. Fern. pa'sa-gwûp.

Delphinium bicolor Nutt. and Menziesii D.C. Larkspur. pa'ga-sau-wi-no-ûp. tu'ku-ba-gûmp.

The second name refers to the deep blue flowers (tu'kûm, the sky, and hence blue, etc.).

Recognized as poisonous.

Deschampsia cæspitosa Beauv. var. Hair Grass.

toi'ya-so-nĭp.

[toi'ya-bi, mountain, + so'nĭp, grass.]

toi'ya-si-wûmp.

[toi'ya-bi, mountain, + si'wûmp, q. vid.]

Seeds eaten.

Deschampsia danthonioides Munro. Hair Grass.

mo'no.

?yo'ni-so-nĭp.

Deyeuxia canadensis Beauv. and stricta Trin. Reed Bent Grass.

ni'a-bĭp.

añ'go-ma-tai-yu.

añ'go-ma-tsai-yu.

 $[a\tilde{n}'go-bi, \text{ spruce}, + ma'tsai-yu.]$

Dodecathion meadia L. Shooting Star.

pa'bu-ĭp.

Dracocephalum parviflorum Nutt. Dragon-head.

toi'ya-ba-gwa-nûp.

[toi'ya-bi, mountain, or toi'yawint, canyon, + pa'gwanûp, mint, which see further.]

The same name also applied to the related forms *Lopanthus urticifolius* and *Scutellaria*.

Seeds gathered as food.

Echinospermum redowskii Lehm., floribundum Lehm., etc. Stickseed.

tso'nap.

This same name was applied to various borraginaceous plants in about the same way as our own English popular name "stickseed."

Eleocharis palustris R. Br. Spikerush.

wan'dzi-baip.

By some occasionally loosely spoken of as *ba'hwap*, which

is correctly the name for Juneus.

Elymus canadensis L. Wild Rye.

ti'wa-bi-nĭp.

o'ro-rop.

o'ro.

o'do.

Seeds formerly gathered for food.

Elymus sibiricus L. Wild Rye; Lyme Grass.

o'ro-rop.

o'ro.

o'do.

By some also spoken of loosely as ni'a-bi, q. vid. Seeds used for food.

Epilobium alpinum L. Willowherb.

u'sa.

Epilobium coloratum Muhl. Willow-herb.

tu'si-gĭp.

The name refers to the black seeds.

Epilobium spicatum L. Willow-herb.

pa'ga-so-nap.

Epipactis gigantea Dougl.

wan'di-wa-sûmp.

wan'di-wa-sĭp.

Equisetum hiemale L. Scouring Rush.

ĭ'sa-yu-gĭp.

Name refers to use made of plant by Indian chi dren for whistles.

Erigeron canadensis L. Fleabane.

?on'tĭm-pi-wa-tsĭp.

?on'tĭm-pi-wai.

This name probably not cor-

```
rectly applied to this form,
       being by nearly all re-
                       species
       stricted
                  to
       Chenopodium.
Erigeron glabellus Nutt. var. Flea-
       bane.
  tĭ'sas.
  dĭ'sas.
  toi'ya-dĭ-sas.
  toi'dĭ-sas.
  toi'ya-da-ti-go-ra.
Erigeron grandiflorus Hook. Flea-
       bane.
  ta'kan-dĭ-di-a-gûp.
  ta'kan-dĭ-dai-gûp.
    The root is said to have been
       used in the preparation of
       an arrow poison.
    [ta'ka, arrow, + di'di-a-kin,
       to kill, etc., gop, gûp, snare,
       means of securing, etc.]
Erigeron leiomerus Gray.
                              Flea-
       bane.
  pu'i-dĭ-sas.
    [pu'i-b\breve{\imath}t, blue, violet, etc., +
       dĭ'sas.]
  tĭ'-sas.
  dĭ'sas (cf. sub E. glabellus).
  ?toi'ya-ta-son-dzi.
Erigeron macranthus Nutt. Flea-
       bane.
  pa'uñ-ga.
  kai'si-na-bop.
    The name mo'a-g\hat{u}p is often
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applied in a general way

to various fleabanes by

some Gosiutes.

Eriogonum brevicaulis Nutt.

Eriogonum cæspitosum Nutt.

tĭm'pi-tĭm-bo-i-ûmp.

pu'i-wa-nûp.

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Eriogonum cernuum Nutt.
  oi'tcu-mo.
    [oi'tcu, bird, + mo'a, (prob.)
      leg; given in reference to
       the peduncle which resem-
      ble slender bird legs with
       toes at top.]
  oi'tcu-yo.
Eriogonum heracleoides Nutt.
  bĭ'tca-mok.
    Name refers
                    to
                        handlike
       appearance of peduncles
       and rays.
  o'a-pa-dza-ki.
Eriogonum inflatum Torr.
  oi'tcu-mo.
  oi'tcu-o.
  oi'tcu-yo (cf. sub E. cernuum,
      etc.).
  ?pi'a-ga.
Eriogonum microthecum Nutt. and
      several others closely re-
      lated.
  sa'na-kün-da.
  sa'na-künt.
  an'ka-wa-dzûmp.
Eriogonum
             ovalifolium
                            Nutt.
      Silver Plant.
  sa'na-kün-da.
  sa'na-künt.
    One of the tim'bai-na-tsu.
      Also an eye medicine and
      occasionally
                      used
                              for
      "stomach-ache."
Eriogonum umbellatum Torr.
  sa'na-kün-da.
  sa'na-künt
                (cf.
                        preceding
      species).
  o'a-pa-dza-ki.
Eriogonum villiflorum.
  toi'gu-pa-gĭnt.
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Said to have been used on burns, but this statement not confirmed.

Erodium cicutarium L'Her. Stork's Bill; Alfilaria. yam'pa-gwa-nûp.

Apparently from yam'pa (q. vid.). Cf. gwa'nup, odor, etc.

Erythronium grandiflorum Pursh. Dog-tooth Violet.

toi'ya-wi-tûm-ba-ga.

Euphorbia montana Engelm., dentata Michx., etc. mo'a-ba-bu-ip.

?toi'ya-ba-bu-ip.

Eurotia lanata Moq. White Sage. tei'cop.

Used as a remedy in intermittent fevers.

Ferula multifida Gray. to'dzûp.

> The young shoots of this plant are said sometimes to have been eaten, but never the grown plant or old parts, which were far too strong in taste. roots furnished a remedy highly esteemed as application on wounds and bruises. For this purpose the roots are first sliced or minced and then thoroughly mashed to a pulp on a stone. It was then ready to be spread upon the affected part. author saw it thus applied to an Indian's foot that

had been crushed under the wheel of a wagon.

Regarded also as an excellent remedy for distemper in horses among the Utes and Gosiutes. The procedure is to burn the roots in a pan held beneath the nose of the sick horse so that the latter shall inhale the smoke.

The seeds are said occasionally to have been eaten.

Festuca tenella Willd. Fescue Grass.

si'wump.

yo'ni-so-nĭp (Goship. Cf. Gly-ceria).

Seeds served as food.

Festuca ovina L. var. brevifolia Watson. Fescue grass. toi'ya-si-wump.

[toi'ya-bi, mountain, + si'-wump.]

tĭ'sa-hûmp.

yo'ni-so-nĭp (Goship. Cf. preceding form and Glyceria).

Occasionally this and preceding form are mentioned as to'bai-bi (see Poa).

Seeds eaten.

Flower (general term).

hĭ'bĭñ-gûp.

Fragaria vesca L. Strawberry. äñ'ka-pa-ri-ûmp.

[$\ddot{a}\tilde{n}'ka$ - $b\check{u}t$, red, + pa, pa'ri, water, watery, + - $\hat{u}mp$; "red water berry."]

Franseria hookeriana Gray. pi'a-tso-hwa.

Fritillaria pudica Spreng. Buttercup; Yellow Bell.

wi'na-go.

Bulbs formerly eaten to some extent.

Galium aparine L. var., and relatives. Bedstraw.

Said to be one of the pûñ'gona-tsu or horse medicines,
but no more specific named
could be recalled by informants. Said by one to be
good for horses when "give
out"; but author has no
information beyond this
statement.

Geranium fremonti Torr. Wild Geranium: Crane's Bill.

ka'na-gwa-na.

pa'hu-ip.

Decoction made from root used in diarrhoea, etc. The remedy is an active and effective astringent. It may be remarked that a species of the same genus was formerly much used for similar purposes in our own medical practice and that by many it was as such highly esteemed.

Gilia aggregata Spreng., etc. mu'tu-nats-ûm-bi-ji.

> [mu'tu-nats, humming-bird, + um, possessive, + bi'dci, milk, nourishment; "hummingbird's milk or nectar." Names applied also to several other related forms, such as Zauschneria.]

Gilia gracilis Hook and linearis Gray.

i'am-bĭp.

[Prob. i'a, wound, +m, $+b\bar{\imath}p$.]

Said formerly to have been mashed up and applied on wounds and bruises.

Glyceria æroides Thurber. Manna Grass.

si'wump.

yo'ni-so-nĭp (Goship. Cf. Festuca).

Cf. Festuca, to which name is also applied. Glyceria is apparently the typical or standard form.

Seeds formerly an important source of food.

Glyceria aquatica Smith. Reed Meadow Grass.

kûm'a-ra-si-yu-gĭp. pa'si-wûmp.

[pa, water, + si'wûmp, q. vid.: water si'wump in reference to habitat in wet ground and along streams.]

Seeds used as food.

Glyceria nervata Trin.

tai'gwi-bi.

si'wûmp.

?pa'si-wûmp (cf. preceding form).

Seeds eaten.

Glaux maritima L. Sea-Milkwort. pa'ru-sip.

?o'ta-bi-da.

Geum rosii Ser.

Said by one to be an i'a-na-tsu.

```
Geum macrophyllum Willd.
  nĭn'ûn-tsai.
    Decoction from roots used as
       medicine.
Glycosma occidentalis Nutt.
  pi'a-po-gop.
  ?pa'si-gwĭp.
    Cf. Osmorrhiza and Angelica,
       which are also called by
       the same name, the former
       probably being the pa'si-
       qwip proper.
Gnaphalium sprengelii Hook. and
       Arn. Cudweed.
  nan'te-bĭtc.
  toi'ya-da-ti-bu-da
  toi'ya-da-ti-bu-da-go-ra.
Grass (general term).
  so'nĭp.
Gravia polygaloides Hook and Arn.
       Shad Scale.
  kan'gûm-pi.
Grindelia squarrosa Dunal.
                            Gum
      Plant; Arnica.
  mu'ha-kûm.
    Cf. further the use of this
      term as indicated in Gos-
      iute list.
    A cough medicine is made
      from the roots among the
      Utes, but the author has
      no information of such use
      among the Gosiutes. How-
      ever, it was quite likely used.
Gutierrezia euthamiæ Torr. and
      Grav. Torch-weed; Rab-
      bit-brush.
  ku'ki-koi-nûmp.
Gymnolomia multiflora Benth. and
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Hook. mo'ta-qa.

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ĭ'ca-mo-ta-qa.
    [ĭ'ca, false, + mo'ta-qa.]
    Seeds formerly eaten.
Hedysarum mackenzii Richard.
  pa'sa-ton-dzĭp.
    [Prob. pa'sa, dry, + ton'tso,
       clover, + \hat{u}p.]
  pi'o-ra.
    [pi'\hat{u}p, large, long, + o'ra,
Helenium autumnale L.
                          Sneeze-
       weed.
  tĭ'da-ya-gûp.
  tĭ'ya-gûp.
  mo'ta-qa.
  mu'ta-qa.
Helenium hoopesii Gray.
                          Sneeze-
      weed: Sneezewort.
  tĭ'da-ya-gûp.
  ti'ya-gûp.
  toi'ya-mo-ta-qa.
Helianthella uniflora Torr. and
      Gray.
  mu'ha-kûmp.
  mo'ha-kûmp.
  pi'a-pa-ot-qa.
    [pi'\hat{u}p, large, + pa-ot'-qa,
      q. vid.]
Helianthus annuus L. Sunflower.
  i'ûm-pi.
    The seeds of the sunflower
      formed a highly prized
      source of food and oil
      among the Gosiutes.
                             The
      seeds, when ripe,
                            were
      beaten out of the heads
      into baskets by means of
      paddles or by means of the
      ordinary collecting baskets
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previously described.

Heracleum lanatum Michx. Cow Parsnip.

ko'no-gwĭp.

Heuchera rubescens Torr. and related species. Alumroot.

wi'gûn-dza.

pa'sa-wi-gûn-dza.

The roots of this plant and closely related forms, inespecially cluding species of Mitella, used as a remedy for colic, etc., in babies and children. properties of the roots are generally astringent. preparation from the root is commonly spoken of as "to'sa-na-tsu," word meaning "white medicine," in reference to its color. It is used in the form of a tea or decoction. It is still constantly used and is highly valued.

 $\begin{array}{ccc} \textit{Hieracium} & \textit{gracilis} & \textit{Hook} & \textit{and} \\ & \textit{scouleri} \; \textit{Hook}. & \textit{Hawkweed}. \end{array}$

mu'tci-gi.

mo'tci-gi.

Holodiscus discolor var. dumosa Maxim.

ku'si-wup.

tiñ'go-ĭp.

tĭñ'-gwĭp.

Hordeum nodosum L. and jubatum L. Barley.

kwa'tci-ûp.

kan'kwai-tcûp.

Humulus lupulus L. Hop.

wa'nûp.

wa'na-na-tsa-mo-gi.

u'na-tso-mo-gi. bi'tca-mok.

> Seeds sometimes mixed in small amounts with the meal or flour prepared from seeds of grasses, etc., prepatory to baking into cakes.

Hydrophyllum occidentale Gray and capitatum. Waterleaf. toi'ya-ba-gwo-dzûp.

[toi'ya-bi, mountain, + pa'-gwo-dzûp.]

Hypnum sp. Moss.

pa'oñ-gûp.

Cf. Polytrichum.

Iva axilaris Pursh.

tu'ro-sip.

 $[tu'o-b\check{u}t, tu'ro-vi, black, + sip, sap, juice, + \hat{u}p.]$

The same name includes also Ambrosia, q. vid.

Iva xanthifolia Nutt.

tu'ro-sip (cf. preceding form). ?kûm'ûn-tsi-a.

Used by a few, but doubtless incorrectly. See *Chenopodium*.

Ivesia gordoni Torr. and Gray. ?toi'ya-wan-go-gĭp.

Jamesia americana Torr. and Gray.

toi'ya-da-tsĭp.

One of a number of mountain plants known under this general designation.

Juniperus californica var. utahensis, etc. Cedar; Juniper. wa'pi.

wap.

The full name as heard among the Shoshoni is wa'ap-o-pi,

and clearly means fire, match, or "kindling wood." In the Gosiute and most related dialects the o'pi, wood, is not heard, the form remaining variously as wap, wa'pi and wai'ap (cf. the Gosiute wai'hĭn, to burn).

One of the most familiar of arborescent plants in the Gosiute territory, occurring widely over the foothills and mountains. furnished the wood most commonly used in the construction of winter lodges, the bark (i'na-wa-tsp)being used for thatching and occasionally as a covering on the floor, though branches smaller and especially grasses were commonly applied to the latter purpose. The bark was also used to line and cover the pits in which dried fruits, etc., were stored. The leaves furnished a favorite medicine for coughs and colds, being used in the form of a tea. It is still much in use for this purpose.

The cedar-berries, known as wap'-ûm-pi, were sometimes eaten in fall and winter after proper boiling.

Juniperus communis var. alpina.
wap.
añ'go-gwa-nûp.

[Prob. $a\tilde{n}'go\text{-}bi$, spruce, + $gwa'n\hat{u}p$, odor, etc.].

Juniperus virginianus L. Red Cedar.

pa'wa-pi.

Kalmia glauca Ait. American Laurel.

tĭm'pĭn-tu-nûmp.

[tim'pi, rock, + tu'nûmp, mahogany.]

Also one of the plants spoken of under the general designation tim'bo-ip. Leaves by some used as a medicine.

Krynitzkia fulvocanescens Gray.

ku'si-ya-ni-gĭnt.

[ku'tsip, ashes, ashen, in reference to the dense gray covering of hair, +ya'ni-gint.]

Lactuca leucophæa Gray. Lettuce. mu'tei-gĭp.

mu'tci-gi.

(pa-ot'-qa; prob. incorrect for this form.)

Lactuca ludoviciana DC. Lettuce. mu'tci-gĭp.

?bi'tci-gwa-nûp.

mu'tci-gi.

The leaves of the various species of *Lactuca* were eaten.

Lathyrus ornatus Nutt. Everlasting Pea.

mu'da-bĭs.

Also known under the general name of pi'o-ra, referring to the stem, and na'da-pa-ra-na-gĭnt, the latter in restricted usage applying to Astragalus and referring to the pod.

Layia glandulosa Hook and Arn. mo'ta-qa.

mu'ta-qa.

Applied also to several other related forms. Cf. further in the Gosiute list under mo'ta-qa.

Leaf (general term). sĭ'gi.

Lemna. Duckweed.

wa'da-bu-ĭp. pai'ya-bo-sip.

Lepidium intermedium Gray. Peppergrass.

wu'bu-i-nûp.

The same name was also applied to several other species belonging to the same family with about the same comprehensiveflexibility and our popular name "peppergrass." Cf. Draba.

Lewisia rediviva Pursh.

ka'na.

Lichen (general term).

tĭm'pĭn-so-kûp.

 $[tim'pi, rock, +n, +sok'\hat{u}p,$ earth, "rock earth or covering."]

Linum kingii Watson. Flax. na'na-rĭp.

Linum perenne L. Flax.

> Applied as a remedy to Said to take bruises, etc. down swelling, etc. Cf. the use of flax-seed meal.

Lithospermum hirtum Lehm. Gromwell.

äñ'ka-tso-nap. äñ'ka-tso-ni-baip.

 $[\ddot{a}\tilde{n}'ka-b\breve{u}t, \text{ red}, + tso'nap \text{ or }]$ tso'ni-baip (cf. under next species), the reference probably being to the deep orange color of the corollas.1

Lithospermum pilosum Nutt. and multiflorum Torr. Gromwell; Stickseed.

tso'ni-baip.

tsom'ba.

tso'nap.

[From tso'mo, tso, hook, etc., + ba, seed, $+ -\hat{u}p$ or $-\tilde{v}p$, the reference being the burlike fruit. Cf. our popular name "stickseed," which corresponds very nearly to the Indian word.

The seeds were sometimes eaten. The roots formed a valued remedy in kidney trouble (diuretic).

Lonicera utahensis Watson and involucrata Banks. Woodbine; Honeysuckle.

pi'a-ra-dûm-bĭp.

pi'a-da-rûm-bĭp.

pa'ri-a-ûn-dĭk-ûp.

 $\lceil pa'ri, \text{ elk}, + \hat{u}n, + d\tilde{u}k'\hat{u}p, \rceil$ food; i. e., "elk's food." Cf. the Ute te'ed-kav.]

These plants are also often spoken of under the name $wu'da-\hat{u}n-d\check{l}k-\hat{u}p$, "bear's food," because the berries are said to be eaten by the bear. Cf. the name "bear-berry," applied by the settlers of Montana, etc., to species of Lonicera.

Lophanthus urticifolius Benth. toi'ya-ba-gwa-nûp.

[toi'ya-bi, mountain, + pa'gwa-nûp, mint (Mentha) the reference being to habitat.]

Cf. Drzcocephalus and Scutellaria, to which forms the same name is also applied. The seeds were formerly ex-

The seeds were formerly extensively gathered for use like those of the grasses and chenopods.

Lupinus leucophyllus Dougl., parviflorus Nutt., etc. Lupine. kwi'ta-kwa-nûp.

[Prob. kwi- $t\hat{u}p$, excrement, $+ gwa'n\hat{u}p$, odor.]

Lycopodium.

?pam'bu-i-ûp.

Lycopus sinuatus Ell. Water Horehound.

nĭ'di-ba.

nĭ'dĭb.

Occasionally heard as $pa'gwa-n\hat{u}p$, the name of the mint (Mentha).

Lygodesmia grandiflora Torr. and Gray.

Said to be one of the horse medicines or pun'go-na-tsu.

Madia glomerata Hook. Tarweed. nan'tai-bitc.

nan'te-bitc.

These names somewhat doubtful as applied to this species.

Malvastrum coccineum Gray.
False Mallow.
pa'sa-koi-no-komp.

koi'no-komp.

Cf. the following species.

Malvastrum munroanum Gray.

koi'no-komp.

koi'ya-kûmp.

This and the preceding form formerly pounded up in water to form a mucilage or gummy paste (wi'nautsaug), which was applied over the rough inner surfaces of earthen vessels, especially bowls (wi'nau). The paste filled up the small holes and covered over irregularities and upon hardening left thus a smooth surface. The wi'nau-tsaug (bowl "filler") was sometimes similarly used in wicker vessels designed to hold water, the commonly latter being first "pitched" with pine gum.

Mammilaria (?).

mu'tsa.

Outer portion of the cactus removed and central part used as food.

Matricaria discoidea.

?mu-i'-tci-gi.

Medicago sativa L. Lucern; alfalfa.

pu'i-di-kûp.

 $[pu'i-b\check{t}t + dik'\hat{u}p.]$

Melica poxoides.

wa'bi.

Mentha canadensis L. Mint. pa'na-tĭ-so.

pa′gwa-nûp.

From the leaves of this plant a tea was made which was used as a beverage.

Mentzelia lævicaulis Torr. and Gray and multiflora.

pi'a-ku-hwa.

Mentzelia pumila, albicaulis, etc. ku'hwa.

Said by one informant to have been used as a medicine for burns (wai'a-na-tsu).

Mertensia alpina.

?toi'ya-mo-ta-komp.

Microseris major and linearifolia. mu'i-tci-gi.

mu'tci-gĭp.

Mitella trifida.

pi'a-näñk.

to'sa-na-tsu.

The roots of species of Mitella and Heuchera were gathered and kept as a medicine for colic in babies. It was used as a decoction and was much valued. The color of the dried roots gave the name of to'sa-na-tsu, white medicine, to the preparation as likewise Mitella itself.

 $Monardella\ odoratissima.$

pu'i-dĭ-sas.

Monolepis chenopodoidea.

ko'ga-bi.

ko'ga-rûm-pi.

Seeds said sometimes to have been eaten.

Nasturtium palustre DC. and var. Water-cress.

si'bo-i-ûmp.

Plant eaten.

Negundo aceroides Moench. Boxelder.

gu'su-wup.

Negundo aceroides, staminate flowers of.

ku'ni-ûp.

Negundo aceroides, pistillate flowers of; samara of.

näñ'ki-tco.

 $[n\ddot{a}\tilde{n}k, \text{ ear}, + \text{prob. } tso'mo, tco, \text{bead, etc.}].$

Nicotiana attenuata Torr. Tobacco.

pu'i-ba-u.

This was the source of tobacco largely used by the Gosiutes, the leaves being dried in the ordinary way and used either alone or mixed with the inner bark of the kinnikinnic (cf. under *Cornus*).

Enothera biennis L. Evening Primrose.

tsľgi-tûmp.

Seeds said to have been occasionally eaten.

Œnothera cæspitosa Nutt. Evening Primrose.

??ka'na-gwa-nu.

??Roots used as medicine.

Opuntia rutila Nutt., microseris DC., etc. Cactus.

ai'gwo-bi.

Formerly used as food, the spines being removed and the joints roasted in hot coals.

Orogenia linearifolia Watson.

kwi'ta-po-ni.

kwi'ta-po.

Gosiutes say the bear often digs up and eats the bulbs of this plant.

Orthocarpus linearifolius Benth. ta'bi-wûmp.

pi'a-ba-bi-wûmp.

Osmorrhiza nuda Torr. Sweet Cicely.

pa'si-gwĭp.

Cf. also the related *Glycosma* and also *Angelica*.

Oryzopsis cuspidata Benth. Mountain Rice.

wai.

A valuable bunch-grass very common in Nevada and Utah. Formerly it furnished an abundance of seeds or grain to the Gosiutes.

Oxyria digyna Camp. Mountain Sorrel.

äñ'ka-si-yu-na.

Pachystima myrsinites Raf. Box. ta'tsĭp.

Parnassia fimbriata Banks. Grass of Parnassus.

tĭm'bi-wi-gûn-dza.

tĭm'bi-wi-gûn-ta.

One of the *tim'bai-na-tsu*.

Parnassia parviflora DC. Grass of Parnassus.

?koi'gwa-nûp.

toi'ya-gwa-nûp.

Cf. Saxifraga nivalis, a related

Pentstemon conjectus Dougl. var. Beard-Tongue.

tu-go-wi-nûp.

Peucedanum graveolens Watson. i'jaip.

The roots of several species of *Peucedanum* formed one of the most valued medicines among the Gosiutes, being, in fact, termed by them *pi'-a-na-tsu*, or "great medicine." In cases of sore throat it was mashed and applied directly to the affected surface. In cases of biliousness and severe colds it was sometimes used as a decoction, being by some mixed with a *koi'na-tsu* and pine resin.

Peucedanum simplex Nutt.

bĭ-tca-mu-kûm.

The name applied strictly to a species of *Eriogonum*, but also used in a more general sense to indicate several other plants like the present one, which have long peduncles bearing rays suggestive of fingers radiating from a hand.

Phacelia menziesii Torr. and circinata Jaeg.

wu'-si-bin-gint.

wu'-si-günt.

The name refers to the clothing of limpid hairs on stems and leaves of these plants.

Phalaris arundinacea L. Canary Grass.

u'-gû-pi.

u'-gĭp.

o-gĭp.

Cf. also *Beckmannia*, to which the name primarily belongs.

Phalaris is regarded as the "little brother" of Beckmannia.

Phlæum alpinum L. Cat's Tail Grass; Mountain Herd's Grass.

tĭ'-so-nĭp.

Cf. alopecurus, which is also included under the name.

Phlox longifolia Nutt. Sweet William; Phlox.

sĭ-bi.

Phoradendron juniperum L. Mistletoe.

o'-ka.

Phragmites communis Trin. Reed. paij.

paidj.

This tall reed is found in abundance in some places along streams and about ponds and is common along the shores of Utah Lake. A sweet secretion or honeydew formed on the leaves by aphides was formerly gathered by the Indians and used as a sugar (u'-qapi-na). The same was true of similar secretions formed on the leaves of the cottonwood and other In pioneer days plants. in Utah the Mormons also gathered this secretion to some extent.

Pinus monophylls Torr. and Trin. Nut-pine.

ti'-ba-wa-ra.

The nuts (ti'-ba) from this tree formed one of the

important foods of the Gosiutes, and the invariable journey into the mountains each fall for the gathering the pine-nut harvest is still looked upon as a great fixed event of the year. In the pine-nut season at this time the Indians go chiefly to the Deep Creek Mountains.

Pinus edulis Eug. Piñon Pine; Nut-pine.

ai'-go-û-pi.

When this species was accessible the nuts were gathered and used like those of the preceding species.

Plant (general term).

si'-a-ka.

pu'-i-si-a-ka.

Plantago eriopoda Torr., patagonica, major L., etc. Plantain.

toi'-gu-pa-günt.

[The name refers to the elevated head of the flowers, toi, indicating elevation, etc., $+ g\hat{u}p$, fruit, + a connective, $+ g\ddot{u}nt$. The same name is sometimes applied to Ranunculus for the same reason.]

Poa californica Munro. Meadow Grass.

ni'-a-bĭp; ni'-a-bi. Seeds eaten.

Poa tenuifolia Nutt. "Bunch Grass"; Meadow Grass. mi'-a-ba-so-nĭp. ni'a-ba-so-nĭp. ni'-a-bĭp.

Cf. the preceding.

The seeds of this abundant "bunch grass," notwithstanding their small size, were an important source of grain to the Gosiutes.

Poa pratensis L. Blue Grass; Meadow Grass.

ni'-a-bĭp.

añ'-go-ma-tsai-ya.

The latter name commonly applied also to Deyeuxia, and apparently more narrowly restricted to the latter. Species of Deyeuxia are also often spoken of as ni'-a-bip, the forms of the two genera not being sharply distinguished by them, as is only natural. Their names, like our own popular ones, often included species which, scientifistudied. cally botanists place in separate genera, while in other cases their distinctions were very close.

Polemonium cæruleum L. Greek Valerian.

ĭ'-ca-ûn-toi-nûmp.

The name refers to the fact that the wolf (i'ca) is said to eat the berries of the plant sometimes when sick.

Polygonum amphibium L.

pi'-a-pa-oñ-gop-pai'-dja-rûmp. [po-ûp, large, + pa'oñ-gop, moss, water-weed, + pai'-dja- $r\hat{u}mp$.]

Polygonum erectum L.

on'ka-pa-bui-i.

Polygonum hartwrightii Gray.

pa'-gu-ĭp.

ta'-kûm-bu-i.

Polygonum imbricatum Nutt.

ko'-ka-bi.

Polygonum viviperum L.

?toi'-ya-da-ti-bu-da.

Polygonum juniperinum. Moss.

tĭm'-pĭn-pa-bo-i-ûp.

pa'-oñ-gop.

pi'-a-pa-oñ-gop.

Cf. Hypnum.

Populus angustifolia James. Cottonwood.

so'-o-pi.

so'ho-bi.

The shoots of the cottonwood furnished the material for much of the basket work among the Gosiutes. Because of greater strength it was preferred to the willows. The honey-dew formed by aphides on the leaves was gathered and used somewhat as sugar.

Populus tremuloides Michx.

Quaking Aspen.

sĭñ-gû-pi; sĭñ'-gûp.

Potentilla anserina L. Five Finger. ?so'-ko.

Potentilla fruticosa L.

wa'tsi-gĭnt.

wa'na-gĭnt.

Potentilla glandulosa Lindl. Five Finger.

pa'-sa-wi-gûmp.

Roots used as medicine. Said to be applied as poultice to swollen parts, and also to be used internally.

Potentilla pennsylvanica. Five Finger.

ku'-si-wañ-go-gĭp.

ku'-tsa-ga-ti-wo-ra-rat.

Potentilla plattensis Nutt. Five Finger.

ĭ'-ca-ro-dzûp.

[i'-ca, wolf, + to'dzûp, q. vid.] Primula parryi Gray. Primrose. ?pu'-i-pa-si-go.

?toi'-ya-na(da)-ta-bu-da.

Prunus demissa Welpers. Choke Cherry; Wild Cherry.

to'o-nûmp. toñ'gi-cĭp.

The fruit was used as food. For winter use, after gathering it was mashed and spread out in layers to dry in the sun. It was then cached like that of the service-berry, previously described. For use, the common method was to grind up the dried fruit, boil in water, and to eat as a sort of mush. A decoction from the bark was used as a "blood medicine," bu'-i-na-tsu, in cases where a person was affected with frequent hemorrhages at the nose, etc., or, according to the Gosiute explanation, when the person "has too much blood." The bark was also used as a *koi'-na-tsu* for babies and children.

Pseudotsuga douglasii Carr. Douglas Spruce.

wañ'-go.

Purshia tridentata DC.

hi'-na-bi.

Cf. Cowania, from which the name is extended by many to the present form.

Pyrus sambucifolia Cham. and Sc. ?ku'-no-gĭp.

This is properly the name of the Elder (Sambucus) and it is doubtful whether the name is properly applied to the present form, which in general appearance resembles it, and hence its specific name. It was hard applied to this form, however.

Quercus undulata Torr., var. Scrub Oak; Rocky Mountain Oak.

kwi'-ni-ûp.

ku'-ni-ûp.

The acorns (ku'-ni-ro-ûmp) were prepared for food in season, but they were not preserved for winter use.

Ranunculus aquatilis L. var.

mo'-a-pa-oñ-gop.

[$mo'a + pa'o\tilde{n}$ -gop, moss, etc.] ?pa'mo.

Said entire plant sometimes eaten.

Ranunculus cymbalaria Pursh.
Buttercup; Crowfoot.
ni'-u-ru-pam-pi.

toi'-gûp-a-günt.

The names refer to the elevated cone-shaped heads; toi, elevate, etc., $+ g\hat{u}p$, fruit, $+ q\ddot{u}nt$. The names are not wholly specific, being applied to some other forms having similar heads.

Ranunculus sceleratus L. Buttercup.

a'-tam-bĭ-tcĭp.

ha'tam-bĭ-tcip.

Rhus aromatica Ait. var. trilobata Gray. Sumac; Squaw-berry. i'-tcĭb.

ai'tcĭb.

u'-i-tcĭb.

Berries to some extent eaten.

Poison Rhus toxicodendron L. Oak: Poison Ivy.

ta'-da-bi.

Rhus glabra L. Sumac; Squawberry.

äñ'-ka-ti-wi-ûmp.

äñ'-ka-ti-wi-a.

Berries eaten. The leaves were formerly smoked.

Ribes aureum Pursh. Missouri or Black Currant.

kai'-i-ûmp.

po'-go-nûp.

po'gûm-pi.

The second name, while often used as applying to this species, is also the general term for the currant berry of this and other species, in this usage being broadly equivalent of the our word currant.

The fruit of this and the following species, which seem to have been less important, was used as food and was dried in quantity and preserved for later use in the usual way.

divaricatum Dougl. var. RibesCurrant.

wĭ'sa-po-gûmp.

The prefixed portion of the name, wi'sa, refers to the prickles bornthis on species.

lacustre and leptanthum RibesGrav var. brachyanthum. Currant.

ai'-go-po-gûmp.

The prefixed or first portion of this compound name means process or thorn, in reference doubtless to the spines of this species.

Ribes oxycanthoides L. Currant. toi'-ya-po-go-nûp.

> The name means "mountain currant."

Root.

tsĭñ.

tsĭn'ai.

Rosa californica and fendleri Crepin. Rose.

tsi'-o-pi.

The name means "prickly plant." The berries, known as tsi'ûmp or dzi'ump, were gathered for food.

Rosa nutkana Presl. Rose.

ti'-a-bi.

The berries are spoken of as mo'gon-dzi-ûmp; which means poison or deleterious rose-berries, these berries

not being regarded as good to eat.

Rubus leucodermis Dougl. Raspberry.

tu'-kwûn-dau-wi-a.

tu'-kwûn-da-wi.

Berries eaten.

Rubus nutkanus Moc. Salmon-berry.

tu'-kwûn-dau-wi-a.

wu'-da-ûn-dĭ-kûp.

The second name refers to the fact that the berries are sought for food by the bear. The same name is also given to a species of Lonicera, q. vid.

Berries eaten.

Rudbeckia occidentalis Nutt. Coneflower.

tu'-ro-vi-pam-pi.

tu'-ro-pam-pi.

tu'-pam-pi.

The names mean simply "black-head," in reference to the color of the coneshaped flower heads.

Rumex salicifolius Welman, etc. Sorrel; Dock.

äñ'-ka-pa-ja-rûmp.

äñ'ka-pai-dja-rûmp.

äñ'-ka-pa-tsa-rûmp.

The root furnishes one of the remedies spoken of by the Gosiutes as "blood medicines," "bu'-i-na-tsu." A decoction of the root is also said to have been used for injection by the rectum in cases of severe constipation.

Sagittaria variabilis Engelm.
Arrow-head.

pa'-bo-bu-ĭp.

pa'ba-bu-ĭp.

pi'a-pa-bu-ĭp.

pi'-a-pa-bo-bu-ĭp.

Salicornia herbacea L. Samphire; Glasswort.

pa'-o-ka; pa'-ho-qa.

o'-ka.

Very abundant in many places in Gosiute territory about alkaline and brackish water or over damp alkaline areas. This is one of the various chenopodaceous plants that contributed seeds so abundantly to these Indians. When the meal from the seeds of this plant was cooked it is described as having tasted like "sweet bread" by those who have eaten it.

Salix longifolia Muh., and other species. Willow.

si'-o-pi.

si'hĭp.

[The name seems to mean approximately "water or wet wood or plant (shrub or tree)," probably in reference to its habitat. Another possible meaning would be "sap wood."]

The wood was commonly used in the making of baskets, water-jugs, etc., though cottonwood was by most preferred when accessible. It was used for making fish-weirs $(p\ddot{a}\tilde{n}'gwi\text{-}go\text{-}\hat{u}p)$ and for other similar purposes.

Salix amygdaloides Anders., lasiandra var., and flavescens Nutt. Willow.

sa'-gû-pi.

Also in a general way designated by the name si'-o-pi, as for the preceding, which is used largely in a generic sense.

Uses like those of the preceding.

Samara of Negundo and Acer. nän'-ki-tco; nän'-ki-tso. ka'bĭp.

Sambucus glauca Nutt. Elder. pa'-go-no-gwĭp; pa'-go-no-gĭp. Bears eat berries.

Sambucus racemosa L. Elder.

ku'-no-gĭp; ku'-no-gi.

ko'-no-gĭp; ko'-no-gi.

The fruit was eaten in season.

Sap.

büc.

Saponaria vaccaria L. Soapwort. sai'-ya-hyu-gĭn.

Widely introduced into Nevada and Utah through early emigrant travel.

Sarcobatus vermiculatus Torr. Greasewood.

Saxifraga nivalis L. Saxifrage. toi'-ya-gwa-nûp.

ka'-i-gwa-nûp.

[Prob. toi-ya-bi, mountain, + gwa'-na, odor, $+ \hat{u}p$.]

Saxifraga punctata L. Saxefrage. pa'-sa-wi-gûn-dza.

Cf. Heuchera.

Scirpus lacustris L. var. occidentalis Watson. Bulrush;
Tule.

saip.

The lower, tender portions of the stems were formerly eaten as food.

Scirpus maritimus L. Sea Bulrush.

ai'-bi-baip.

saip.

Cf. Carex hookeriana and utriculata, which are often grouped under the first names, which is applied to large forms of Carex only, the sedges being strictly spoken of as pa'gi-gip.

Sedum glandulosum, etc. Stone-crop.

äñ'-ka-ti-wi-a.

Leaves formerly smoked.

The plant was ranked with
the kinnikinnic (Cornus)
because of this use.

Seed.

ba.

bi'a.

Seedling.

ĭ'-gi-na-ga.

[This name is from ℓ' - $g\ell n$, meaning immediate, beginning or initial, and a'-ka, plant.]

Senecio, several species. Ground-sel.

tĭm'-pi-dza-na-kwo.

The name means "mouth gum," the equivalent of our "chewing-gum," a chewing-gum having been prepared formerly from the latex.

Shepherdia argentea Nutt. Buf-falo-berry.

äñ'-ka-mo-do-nûp.

äñ'-gû-ta-gûp.

äñ'-gûp.

These names refer to the scarlet berries.

o'-pĭp.

Berries eaten.

Shepherdia canadensis Nutt. Buffalo-berry.

a'-da-rûm-bĭp.

pi'-a-da-rûm-bĭp.

Cf. Ceanothus, a'da-rum-bipäñ-ka-sip.

Sidalcea malvæflora Gray.

mû'-tsai-kûmp.

mĭ'-ta-kûmp.

mĭ'-ta-komp.

Silene acaulis L. Catchfly.

tĭm'-pi-sa-gwûp.

wa'-si-pĭt.

Said to have been used for colic, etc., in children, being a koi'-na-tsu.

Silene antirrhina L. Catchfly. oi'-tcu-vo.

Silene multicaulis Nutt. and scouleri Hook. Catchfly.

In cases of "pain in stomach" this plant was sometimes used as an emetic. The method of use was to pound up, put into warm water, and drink. It was also used as a horse medicine or $p\hat{u}\hat{n}'go-na-tsu$.

Silene menziesii Hook. Catchfly. yo'-go-ti-wi-ya.

Leaves formerly smoked as a tobacco, being dried and powdered for this purpose.

Sisymbrium canescens Nutt. Hedge Mustard.

poi'-ya.

po'-nok.

Seeds were gathered and used for food, being made into a kind of mush that was much liked.

Sium cicùtæfolium Schrank. Water Parsnip.

pa'-o-tim-bite.

?toi'-ya-ro-dzĭp.

Smilacina amplexicaulis Nutt. False Solomon's Seal.

ĭ'-dja-pain-po-go-nûp.

 $[i'-dj\hat{u}-pa, \text{ coyote}, + n, + po'-go-n\hat{u}p, \text{ berry.}]$

ĭ'-ca-bo-gûp.

i'ca-bo-go-nûp.

 $[\mathcal{V}$ -ca, wolf, + $po'g\hat{u}p$, po'-go- $n\hat{u}p$, berry.]

Cf. the name for this plant. yo-go-ta-ma-nûmp.

Berries said to be eaten by the bear, and hence the plant is designated as one of a number under the name $wu'da-\hat{u}n-d\tilde{t}-k\hat{u}p$, "bear food." It is also known from a legendary reference as $p\hat{u}\tilde{n}'go-\hat{u}n-da-mi$ $(p\hat{u}\tilde{n}'go$, horse, $+\hat{u}n+da'mi$.)

Smilacina stellata Desf. False Solomon's Seal.

pai'ya.

Roots pounded up and rubbed on limbs in cases of rheumatism. Bears said to eat berries, as with the preceding species.

Solanum tuberosum L. Potato. go'-tsa-wĭn.

Sometimes spoken of also as dzi'na, the name primarily applied to the Springbeauty, the bulbs of which were eaten. The potato is cultivated to some extent by the Gosiutes.

Solidago canadensis L., nemoralis Ait., spectabilis Gray, etc. Golden-rod.

oi'-yĭnk.

o'-a-yĭñk.

 $[o'-a-b\breve{u}t, yellow + y\breve{n}k.]$

Seeds to some extent gathered and eaten.

Sonchus asper Vill. Sow-thistle. mu'-tei-gĭp.

An introduced plant designated by the name applied to the closely allied nature species of *Lactuca*, which see.

Spartina gracilis Trin. Salt Grass. na'-da-pu-gu-ĭ-gi.

Sphæralcea rivularis Torr.

pĭ-tca-gwa-nûp.

toi'-na-ko-nĭp.

koi'-na-komp.

Cf. malvastrum.

Sphæralcea emoryi Torr.

koi'-na-komp.

pi'-a-koi-na-komp.

Cf. malvastrum. This genus in general characteristics is extremely similar to Malvastrum, and it is only

natural that popularly and by the Indians no wide differences in designation are present.

Spiræa cæspitosa Nutt. Meadowsweet.

tĭm-pĭn-tĭm-bo-ûmp.

tĭm'-bo-ûmp.

tĭm'-bi-ma.

While the leaves are used as a bowel medicine, it is mostly employed as a remedy for burns. For this the roots are used. The roots are first freed from dirt and epidermis and then boiled to a pulp, which is applied as a salve to the burned portion, as is described in the earlier portion of this paper. remedy is highly valued and to the author has seemed efficacious in cases observed.

Spiranthes romazoffiana Cham. Ladies' Tresses.

sai'-gi-tamp.

Used as a medicine in venereal disease—a. *tĭm'-bai-na-tsu*.

Stachys palustris L. Woundwort. toi'-ya-ba-gwa-nûp.

[Cf. composition sub. Lophan-thus.]

Seeds gathered for food along with those of *Lophanthus*, *Scutetlaria*, etc., closely related forms known under the same name.

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Stalk, stem.
  o'ra.
Stephanomeria exigua Nutt.
  mo'-a-gûp.
Stipa comata Trin. and Pupr.
       Feather Grass.
  dai'-gwi-wĭq.
  o'-gwĭp.
  o'gĭp.
Stipa speciosa.
                Feather Grass.
  o'-gwĭp.
  o'-gĭp.
  yu'-gwĭp.
    Cf. Aristida, a genus very
       close to the present one.
Stipa viridula Trin.
                          Feather
       Grass.
  pa'-si-wu-mûts.
  pa'-si-wu.
  o'gwĭp.
  o'gĭp.
Taraxacum
               officinale
       Dandelion.
```

Weber.

ti'-bo-hi.

ti'-bu-i.

mu'-tca-gip.

mu'-tci-gi.

mu'-tca-gi-a.

Cf. Crepis.

Tetradymia canescens DC. var. inermis Grav.

si'-bû-pi.

Cf. Bigelovia.

Townsendia sericea Hook. var., etc.

mûts'-ĕm-bi-a-di-kûp.

The name means literally "mountain-sheep food" (muts'ĕm-bi-a, mountain sheep, $+ d\vec{\imath}' k u p$), a name referring to its serving as food for the mountain sheep. It is not specific.

various Trifolium, species. Clover.

ton'-tso.

Triglochin maritimum L. Arrowgrass.

pa'-na-wi.

Mentioned also as one of the various $p\hat{u}\tilde{n}'go-un-da-mi$. Seeds eaten.

Trisetum subspicatum Beam.

wi'-tcûb.

Also sometimes more generally as ni'a-bip.

Seeds eaten.

Troximon aurantiacum Hook.

mu-tci-gip.

mu'tci-gi-a.

Leaves sometimes eaten.

Troximon sp.

?koi'-nûmp.

See Microseria.

Typha latifolia L. Cat-tail. to'-ĭmp.

[Means mouse or rat.]

Seeds eaten. The bristles of the ripe spikes were burned off, the seeds becoming roasted or partially so in the process. The seeds were then freed and dealt with as usual.

Urtica holosericea Nutt. tĭn'-ai-gop.

> The name refers to the stinging hairs or nettles.

Urtica sp.

tu'-i.

```
Vaccinium
             caspitosum
                          Michx.
      Belberry; Blue-berry.
  tĭ'-da-kai-mi-ya.
  ti'-mai-hya.
    Leaves formerly dried and
       used as a tobacco.
                          Hence
       grouped with kinnikinnic
      (Cornus) by the Indians.
Valerianella congesta DC.
  a'-pa.
Valeriana edulis Nutt.
  toi'-ya-bĭt-ûm-ba-ga.
  toi'-ya-bĭt-um-ba.
    Roots pounded up and rubbed
      on externally for rheu-
      matism.
                 Said also to be
      good
              on
                   swollen
      bruised regions (bai'qwi-
      na-tsu). Roots eaten.
Valeriana sylvatica Banks.
  ku'yi-kwa-nûp.
  ku'i.
    Said to kill horses.
                          An ar-
      row poison is said to have
      been prepared from the
      root.
Veratrum californicum Durand.
      False Hellebore.
  ĭ'-ca-po-go-nûp.
    The name may be rendered
      "wolf current."
                        Vetch.
Vicia americana Muhl.
  up'-ta-wu-kwa-dju-nĭñ.
Viola cucullata Ait. Violet.
  ?pe-ku-ĭp.
    Name not specific.
Viola palustris L.
                   Violet.
  ??dzi'-na-so-so.
Wood (general term).
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o'-pi.

wu'-pi.

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Commonly used as the equiv-
      alent of tree or shrub,
      i. e., woody plant or even
      of plant in general.
Wyethia amplexicaulis Nutt.
  pi'-a-kĕn-dzĭp.
    [pi'\hat{u}p, \text{ big},
                  + a'-k\breve{e}n-dz\breve{i}p,
      q, vid.
    Seeds formerly gathered as
      food. The roots furnished
      a remedy applied exter-
      nally upon bruised and
      swollen limbs, etc.
Xanthium strumarium var. echina-
      tum. Cockle-bur.
  kwi'-tcĕm-bo-gop.
    The name means "cow" or
      "bison fruit or berry."
Zauschneria californica Presl.
  mu'-tu-nants-um-bĭ-ji.
  mu'-tu-nants-pi-na-di-kĭnt.
    The first name means "hum-
      ming-bird's milk"; the sec-
      ond approximately "hum-
      ming-bird's sugar or sweet
               "humming-bird's
      food."
      nectar." The same name
      is also applied to Gilia ag-
      gregata, etc., being of gen-
      eric character and inde-
      pendent of the more special
      names of each form.
Zea mais L. Indian Corn; Maize.
  ko'-mu.
  korn (from English).
Zygadenus nuttalli Gray.
                          Poison
      Sego.
  ta'-bi-si-go-ûp.
  ta'-bĭ-tci-gop.
    [ta'-bi, sun, referring to the
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clustered flowers (Cf. ta'-

bi-si-bi-pi), + si'-go, + $\hat{u}p$.]

Furnished a medicine used

as an emetic. Also one used in certain venereal affections (tim'-bai-na-tsu).

GOSIUTE NAMES WITH SCIENTIFIC AND ENGLISH EQUIVALENTS.

a'-da-rûm-bĭp.

See a'di-rûm-bip, the more usual form.

a'di-rûm-bĭp.

Ceanothus velutinus Dougl. New Jersey Tea.

Cf. the next name.

Symphoricarpos oreophilus Gray. Snowberry.

This plant is not known to all under this name.

a'-di-rûm-bĭp-äñ-ka-sip.

Ceanothus velutinus Dougl. New Jersey Tea.

By this fuller name distinguished from the Snowberry by those who designate the latter under the preceding name.

ai'-bi-baip.

Scirpus maritimus L. Clubrush; Bulrush.

Carex hookeriana Dew. Sedge. The name is also sometimes applied to C. utriculata Boott.; and other, especially larger forms more strictly designated by pa'gi-gip, q. vid.

ai'-di-wĭ-sĭ-gi-nûmp.

ai'-go-po-gûmp.

Ribes lacustre Poir. Currant.
Ribes leptanthum Gray, var.
brachyanthum. Currant.

ai'-go-û-pi.

Pinus edulis Eng. Piñon Pine. ai'-gwa-bo-gûp.

Cnicus eatoni Gray. Thistle. Cf. ai-wa-bo-gûp.

ai'-gwo-bi.

Opuntia sp. Cactus. ai'-tcĭb.

ar-tc1b.

Rhus aromatica Ait. var. trilobato

Gray. Sumac.

Cf. u'-i-tcĭb, as the name is often heard in the Skull Valley band.

a'-ka.

Name of a plant not identified with certainty. The seeds are said to have been eaten.

ai'wa-bo-gûp(-gop).

Cnicus eatoni Gray. Cf. ai'gwa-bo-gûp.

a'-kĕn-dzĭp.

Balsamorrhiza hookeri Nutt.

More specifically wi'-a-kĕn-dzĭp, q. vid.

Balsamorrhiza sagittata Nutt. Arrowroot.

More specifically ku'si-a-këndzp, q. vid.

a'na-gwa-nûp.

Cleome integrifolia Torr., and Gray.

an-dzûp'.

Cymopterus longipes Watson.

añ'-go-bi.

Pseudotsuga douglasii Can. Douglas Spruce.

añ'-go-gwa-nûp.

Juniperus communis var. alpina. Cf. wa'-pi.

añ'-kai-yûmp.

Rhus glabra L. Sumac.

Shortened from an'-ka-ti-wiûmp, the full form.

añ'-go-ma-tai-yu.

See añ'-go-ma-tsai-yu.

añ'-go-ma-tsai-yu.

Deyeuxia canadensis Beam. Reed Bent Grass.

Deyeuxia stricta Trin. Reed Bent Grass.

Poa pratensis L. Meadow or Blue Grass.

Cf. ni'-a-bĭp.

añ'-go-mû-tsa-wai-ni.

añ'-gû-pi; añ'-gûp.

See añ'-ka-mo-do-nûp, from which this is shortened.

äñ'-ka-koi-nûmp.

Sometimes heard in place of $\ddot{a}\ddot{n}'$ -ka-koi-nûp, $q.\ vid.$

äñ'-ka-koi-nûp.

Same as äñ'ka-kwi-nûp, the preferred and etymologically more proper pronunciation.

äñ'-ka-kwi-nûp.

Cornus stolonifera Michx.
Kinnikinnic.

äñ'-ka-kwa-tci-ûp.

äñ'-ka-pa-bu-ĭp.

Polygonum erectum L.

äñ'-ka-pa-dja-rûmp.

Rumex salicifolius Wemman.

Dock; Sorrel.

äñ'-ka-pai-dja-rûmp.

Same as preceding.

äñ'-ka-pa-rûmp.

Same as äñ'-ka-pa-dja-rûmp.

äñ'-ka-pa-rûmp.

Same as äñ'ka-pa-dja-rûmp.

äñ'-ka-pa-ri-ûmp.

Fragaria vesca L. Strawberry.

äñ'-ka-po-gomp.

Occasional for äñ'ka-mo-donûp, which see.

äñ'-ka-mo-do-nûp.

Shepherdia argentea Nutt. Buffalo-berry.

äñ'-ka-pu-i.

See äñ'ka-pa-bu-ip, the full form.

äñ'-ka-si-yu-na.

Oxyria digyna Comp. Mountain Sorrel.

äñ'-ka-ti-wi-a.

See äñ'ka-ti-wi-ûmp.

äñ'-ka-ti-wi-ûmp.

Rhus glabra L. Sumac.

äñ'-ka-tso-nap.

See äñ'ka-tso-ni-baip.

äñ'-ka-tso-ni-baip.

Lithospermum hirtum Lehm. Gromwell.

äñ'-ka-wa-dzûmp.

Eriogonum microthecum Nutt., etc.

a'-pa.

Valerianella congesta DC.

a′-po

Atriplex truncata Torr.

a'-ra-si-mu.

?Clematis douglasii Hook. Clematis; Virgin's Bower. See o'bĭn-da-ma-nûmp. a'-tam-bĭ-tcĭp.

Berula angustifolia Koch. ats.

Amarantus sp.

ba.

Seed.

ba'-hwap.

Juncus balticus Deth. and parryi Eng. Bog-rush.

See pa'-hwap and pa'-ûm-ûp. bi'-a-gĭnt.

Catkin, female, of willows, etc. bĭ'-dji-gwa-nûp.

Cleome integrifolia Torr. and Gray.

bi'-tci-gwa-nûp.

Same as the preceding.

bĭ'-tca-mok.

Eriogonum heracleoides Nutt. bĭ'-tca-mu-kûm.

Eriogonum heracleoides Nutt. Peucedanum simplex.

büc.

Sap: juice.

dai'-gwi-wĭq.

Stipa comata Trin. and Rupre. Feather Grass.

da'-pa-rai-nûmp.

Astragalus iodanthus Watson. Rattle-weed.

dzi'-na.

Claytonia caroliniana var. sessilifolia Torr. Springbeauty.

Solanum tuberosum. Potato.
Occasional and secondary.
Cf. go'tsa-win.

dzi'-na-so-so?

Viola palustris L. Violet.

dzi'-cûp.

Atriplex canescens James.

go'-ni-na-tsu.

See toi'na-tsu, the more common form.

go'-tsa-wĭn.

Solanum tuberosum L. Potato.

gu'-su-wup.

Negundo aceroides Moench. Box-elder.

ha'-ta-bi-tcĭp.

Ranunculus sceleratus L. Buttercup.

See a'tam-bi-teĭp, the more usual form.

hĭ'-bĭñ-gûp.

Usual form. Flower.

hĭ'-na-bi.

Cowania mexicana Don. Cliff Rose.

Purshia tridentata DC.

hu'-gû-pi.

See also u'gû-pi, the more usual form in which heard.

ĭ'-ca-bo-go-nûp.

Veratrum californicum Durand. False Hellebore.

Smilacina amplexicaulis Nutt. False Solomon's Seal.

See i'djû-pain-po-go-nûp.

ľ'-ca-bo-gûp.

Aconitum fischeri. Monkshood. See the preceding.

Y-dja-pa-bo-gop.

Same as ĭ'ca-bo-go-nûp, which see.

ĭ'ca-un-toi-nûmp.

Polemonium coeruleum L. Greek Valerian.

i'-djaip.

Peucedanum graveolens Watson, etc.

Y'djûm-ûm-bu-i.

Catkin, male, of willow, etc.

Y-djû-pain-po-go-nûp.

Smilacina amplexicaulis Nutt. False Solomon's Seal.

ĭ'gi-na-ga.

Seedling; germinating plant.

ĭ'gi-si-a-ka.

Bud.

i'-na-bi.

See hi'-na-bi.

ĭ'-sa-yu-gĭp.

Equisetum hiemale L. Scouring Rush.

i'-tcĭb.

Rhus aromatica Ait. var.
Sumac; Squaw-berry.
Cf. ai'-teĭb.

i'-ûm-pi.

Helianthus annuus L. Sun-flower.

i'ûp.

See the following.

i'-û-pi.

Chenopodium leptophyllum Nutt. Pigweed; Goose-foot.

ka'-bĭp.

Samara of Negundo, Acer, etc. Cf. näñ'-ki-tco.

kai'-i-ûmp.

Ribes aureum Pursh. Missouri Currant.

kai'si-na-bop

Erigeron macranthus Nutt.

ka'-na.

Lewisia rediviva Pursh. Bitterroot.

ka'-na-gwa-na.

?Geranium fremonti Torr. Geranium; Crane's Bill.
Cf. pa'-hu-ĭp.

Enothera cæspitosa Nutt. Evening Primrose.

ka'-na-gwa-nu.

See ka'-na-gwa-na.

kan'-gûm-pi.

Grayia polygaloides Hook and Arn. Shad Scale.

Cf. mo'-do-nûp.

kan'-kwai-tcûp.

Hordeum nodosum L. and jubatum L. Barley.

kan'-kwa-tci-ûp.

See the preceding.

ka'-nûm-pi; ka-nûmp.

Atriplex confertifolia Watson. See suñ, the standard name.

ko'-ga-bi.

 $Monole pis\ chenopodo idea.$

ko'-ga-rûm-pi.

Monolepis chenopodoidea.

koi'-di-gĭp.

Castilleia miniata Dougl.
Painted-cup.

koi'-gwa-nûp.

koi'-na-komp.

Malvastrum munroanum Gray. False Mallow.

 $Sphaeralcea\ emoryi\ {\bf Torr.}$

Cf. pi'-a-koi-na-komp.

koi'-na-tsu.

General term applied to various medicines and the plants furnishing them which are used in intestinal and stomach troubles. See Arenaria, Silene, etc.

koi'-no-komp.

Same as koi'na-komp, which see.

koi'-si-na-bop.

Erigeron macranthus Nutt. Fleabane.

Cf. kai'-si-na-bop.

ko'-ka-bi.

See ko'ga-bi.

ko'-mu.

Zea mais L. Indian Corn. See Korn.

ko'-no-gwip.

Heracleum lanatum Michx. Cow Parsnip.

korn.

From the English. See ko'-mu. ko'-sa-mu-i-tci-gĭp.

ko'-si-bo-qûn-tos.

Chænactis douglasii Hook and Arn.

Cf. wañ'-gi-gĭp.

ku'-hwa.

Mentzelia albicaulis Dougl., etc.

ku'-i-do-gĭp.

See koi'-di-gĭp.

ku'-i-gwa-nûp.

Saxifraga nivalis L. Saxifrage. Cf. toi'-ya-gwa-nûp.

ku'-ki-koi-nûmp.

Gutierrezia euthamiæ Torr. and Gray. Torchweed; Rabbit Brush.

kû'-ma-ra-tsi-yu-gĭp.

Glyceria aquatica Smith. Reed Meadow Grass.

Cf. pa'-si-wûmp.

kûm'-ûn-tsi-a.

Chenopodium rubrum L. and capitatum Wat. Pigweed; Goose-foot.

Cf. on'-tĭm-pi-wai.

koi'-nûmp.

Microseris sp.

Cf. mo-i'-tci-gĭp.

ku'-ni-ro-ûmp.

Acorn.

küñ'-ga.

Allium bisceptrum Watson and acuminatum Hook. Onion.

ku'-ni-ûp.

Staminate flowers of Negundo, etc.

ku'-no-gi.

Quercus undulata Torr. var. Scrub Oak.

See the following.

ku'-no-gĭp.

Sambucus racemosa L. Elder.

ku'-si-a-ka; ku'-si-ak.

An abbreviated form of ku'-si-a-kı̆n-dzı̆p, which see.

ku'-si-a-kĕn-dzĭp.

Balsamorrhiza sagittata Nutt. Arrowroot.

ku'-si-pa-hwats.

Shortened form of ku'-si-pawa-tsip.

ku'-si-pa-wats.

Shortened form of ku'-si-pawa-tsĭp.

ku'-si-pa-wa-tsĭp.

See ku'tsi-pa-wa-tsĭp.

ku'-si-wañ-go-gĭp.

Potentilla pennsylvanica L. Five-finger.

ku'-si-wûp.

Holodiscus discolor var. dumosa maxim.

ku'-so-nĭp.

Brizopyrum spicatum Hooker.

ku'-si-ya-ni-günt.

Krynitzkia fulvocanescens Gray.

ku'-tsa-ga-ti-wo-ra-rat.

Potentilla pennsylvanica L. Five-finger.

See ku'-si-wañ-go-gĭp, supra. kwa'-tei-ûp.

Hordeum nodosum L. and jubatum L. Barley.

Cf. kan'-kwai-tcûp.

kwi'ta-kwa-nûp.

Lupinus leucophyllus Dougl., parviflorus Nutt., etc. Lupine.

kwi'-ta-po.

See the next.

kwi'-ta-po-ni.

Orogenia linearifolia Watson.

kwĭ'-tcĕn-bo-gûp.

Xanthium strumarium var. echinatum. Cockle-bur.

ma'-ba-so-nĭp.

See mi'-a-ba-so-nĭp.

mĭ'-ta-kom.

See the following word.

mĭ'-ta-komp.

Sidalcea malvæflora Gray.

mĭ'-ta-kûmp.

Same as the preceding.

mo'-a-ba-bu-ip.

Euphorbia montana Engelm., dentata Michx., etc.

mo'-a-gûp.

Stephanomeria exigua Nutt.

Anaphalis margaritacea Benth. and Hook. Everlasting.

Arnica parryi Gray.

mo'-a-gwa-nûp.

mo'-ha-gûp.

Same as mo'a-gûp.

mo'a-mu-ĭ-tci-gi.

Same as the following.

mo'-a-mu-ĭ-tci-gĭp.

Crepis occidentalis Nutt.

mo'-a-kûmp.

Balsamorrhiza hookeri Nutt.

Cf. o'-a-kûmp and wi'-a-kĕn-dzĭp.

mo'-a-pa-oñ-gop.

Ranunculus aquatilis L. var.

mo'-do-büc.

mo'-do-nûp.

Grayia polygaloides Hook and Arn. Shad-scale.

mo'-gon-dzi-ûmp.

Berries of Rosa nutkana Presl. mo'-no.

Deschampsia danthonioides
Munro.

mo'-ta-ga.

See mo'-ta-qa.

mo'-ta-komp.

mo'-ta-ga.

Helenium autumnale L. Sneezeweed.

Cf. tĭ'-da-ya-gûp.

Layia glandulosa Hook and Arn. Gymnolomia multiflora Benth. and Hook.

Cf. ĭ'-ca-mo-ta-ga.

The name is properly applied to these and their relatives and has no popular English equivalent. As may be seen, these forms in general may have also a more specific designation as well. It is probably used in a more restricted sense for Layia, etc., daisy-like forms.

mo'-tci-gi.

See mo'-tci-gĭp.

mo'-tci-gĭp.

Same as mû'-tci-gĭp, which see. mu'-a-kûmp.

See mo'-a-kûmp.

mu'-ha-ti-bu-i.

Crepis glauca Torr. and Gray. Cf. mu'-tci-gfp.

mu'-ha-kûm.

See the next word.

mu'-ha-kûmp.

Grindelia squarrosa Dunsl. Arnica.

Helianthella uniflora Torr. and Gray.

mu'-i-tci-gi.

Same as mu'-i-tci-gĭp.

mu'-i-tci-gĭp.

See mu'-tci-gip.

mu'-pa-tai-gi-nûp.

Arctium lappa L. Burdock. mu'-ţei-gi.

See the following.

mu'-tci-gip.

Hieracium gracilis Hook and scouleri Hook. Hawkweed; Thistle.

Sonchus asper Vill. Sow-thistle.

Crepis glauca Torr. and Gray. Lactuca leucophæa Gray and

ludoviciana DC. Lettuce. ?Troximon aurantiacum Hook.

The word corresponds approximately to the English "thistle," as popularly used, applying to quite a variety of forms as above indicated. Some of these have their more specific designations as indicated under each.

mu'-tsa.

?Mammilaria sp. Cactus. mu'-tsai-kûmp.

Sidalcea malvæflora Gray.

Cf. mĭ'-ta-kûmp.

mû'-tsĕm-bi-a-dĭ-kûp.

Townsendia sericea Hook. and other alpine forms eaten by the mountain sheep.

mu'tu-nants-ûm-bi-ji.

Zauschneria californica Presl., Gilia aggregata, etc.

na'-da-pa-ra-na-gint.

Astragalus iodanthus Watson. Buffalo-bean.

Cf. da'pa-rai-nûmp.

nai'-a-bĭp.

See ni'a-bip.

na'-na-rip.

Linum kingii Watson. Flax.

näñ-ki-tco.

See näñ'ki-tso.

näñ'-ki-tso.

Samara of *Negundo*, *Acer*, etc. Cf. ka'bĭp.

nan'-tai-bitc.

See nan'te-bitc.

nan'-te-bitc.

Gnaphalium sprengelii Hook. and Arn. Cudweed.

Madia glomerata Hook.

ni'-a-ba-so-nĭp.

See ni'-a-bip.

ni'-a-bi.

Same as the following.

ni'-a-bĭp.

Deyeuxia canadensis Beauv. and stricta Trin. Reed Bent Grass.

Poa pratensis L. Blue Grass.

Poa tenuifolia Nutt. Bunch Grass; Meadow Grass. nĭ'-di-ba.

Lycopus sinuatus Ell. Water Horehound.

nĭ'-dĭp.

Same as nĭ'-di-ba.

nĭ'-dĭp.

Same as nĭ'-di-ba.

nĭ'-nûn-tsai.

Geum macrophyllum Willd.

na'-da-pu-gai-gi.

Spartina gracilis Trin. Salt Grass.

ni'-u-ru-pam-pi.

Ranunculus cymbalaria Pursh. Buttercup.

nu'-ro-pam-pi.

Same as preceding.

o'-a-kûmp.

Balsamorrhiza hookeri Nutt.

Cf. mo'-a-kûmp and wi'-akĕn-dzĭp.

o'-a-pa-dza-ki.

Eriogonum heracleoides Nutt. and umbellatum Torr.

Cf. bĭ'-tca-mu-kûm for the first and sa'-na-kun-da for the second.

o'-a-tûmp.

Avena sativa L. Oats.

o'-bĭn-da-ma-nûmp.

Clematis douglasii Hook and ligusticufolia Nutt. Virgin's Bower.

o'-do.

Shortened from o'do-rop, which see.

o'-do-rop.

Same as o'ro-rop, the more usual form.

o'gĭp.

Phalaris arundinacea L. Canary Grass.

Aristida purpurea Nutt. Tripleawned Grass.

Cf. o'gwĭp; u'-gwĭp; toi'-ya-o-gwĭp and yo'nĭp.

oi'-tcĭp.

Cratægus oxycanthus. Thorn. oi'-tcûn-goi-djok.

Sedum debile Watson, etc. Stone-crop.

oi'-tcu-mo.

Eriogonum cernuum Nutt. and inflatum Torr.

oi'-tcu-o.

Same as the preceding.

oi'-tcu-yo.

See oi'-tcu-yo.

o'-ro-rop.

Agropyrum repens Beauv. Blue-joint.

Cf. wa'-don-dzĭp and pĕ'-gayu-gĭp.

Elymus canadensis L. Wild Rye; Lyme Grass.

Cf. ti'-wa-bi-nĭp.

Elymus sibiricum L. Wild Rye; Lyme Grass.

o'-ro.

Shortened form of o'-ro-rop, which see.

oi'-yĭñk.

Solidago canadensis L., nemoralis Ait., etc. Golden-rod.

o'-a-yĭnk.

Same as oi'-yĭnk and about equally common with it. Doubtless the original form (o'-a-bĭt, yellow, + yĭñk).

o-ka.

Salicornia herbacea L. Samphire.

Cf. pa'-o-ka, which is the definite and far more frequent form, o'ka being narrowly applied to the other plant.

on'-tim-pai-wa.

Variant from on'-tĭm-pi-watsĭp, which see.

on'-tim-pi-wai.

See on'-tim-pi-wa-tsip.

on'-tim-pa-wa.

See on'-tim-pa-wa-tsip.

on'-tim-pa-wa-tsip.

See on'tim-pi-wa-tsip.

on'-tim-pi-a-wa.

See the following.

on'-tim-pi-wa-tsip.

Chenopodium rubrum L. and capitatum Watson. Pigweed.

o'-pi.

Wood; tree or shrub; plant. pa-at'-ga.

See pa-otq'-ga.

pa'-bĭp.

pa'-bo.

From pa'-bo-go, which see. pa'-bo-go.

Cnicus undulatus Gray. Plumed Thistle.

pa'-bo-gwo.

Same as the preceding.

pa'-bu-ĭp.

commonly used as a general term indicating plants growing in water or wet places with the leaves floating or above the water.

Dodecathion meadia L. Shooting Star.

Sagittaria variabilis Engelm.
Arrow-head.

See pa'bo-bu-ip.

pa'-bo-bu-ĭp.

Sagittaria variabilis Engelm.
Arrow-head.

pa'-da-wĭ-si-go-ûp.

pa'-ga-sau-wi-no-ûp.

Delphinium bicolor Nutt. and menziesii DC. Larkspur.

pa'-gi-gĭp.

Carex jamesii Torr., fistira, etc. Sedge.

Carex utriculata Boott. Sedge. Cf. also ai'-bi-baip.

pa'-ga-so-nap.

Epilobium spicatum L. Willow-herb.

pa'-go-no-gwip.

Sambucus glauca Nutt. Elder. pa'-go-no-gĭp.

See pa'-go-no-gwip.

pa'-go-nu-ĭp.

pa'-gu-ĭp.

Polygonum hartwrightii Gray.

pa'-gwa-nûp.

Mentha canadensis L. Mint.

pa'-gwo-dzûp.

Claytonia perfoliata Donn. Spring Beauty.

pa'gwo-nûp.

?Chenopodium capitatum Watson. Pigweed.

pa'-hu-ip.

Dodecathion meadia L. Shooting Star.

pa'-hwats.

Artemisia dracunculoides Pursh.

paidj. Phragmitescommunis Trin. Reed. pai'-gĭp. Same as pa'-gi-gip, which see. Smilacina stellata Derf. False Solomon's Seal. pai'-va-bo-sip. Lemna. Duck-meat: Duckweed. Cf. wa'-da-bu-ip. pai'-yo-nĭp. Juncus bufonius. Bog-rush. pa'-ma-wûp. Juncus balticus Deth. and parryi Engelm. Bog-rush. pa'-hwap. See pa'-ma-wûp. pam'-bu-i-ûp. Lycopodium sp. pa'-mu. Nasturtium palustre DC. and var., etc. Water-cress. ?Ranunculus aquatilis L. var. pa'-mo See pa'-mu. pa'-na-tĭ-so. Mentha canadensis L. Mint. See pa'-gwa-nûp. pa'-na-tsu. Apparently the same as the preceding and etymologically preferable in such case (pa, water, + na'-tsu, medicine). pa'-na-wi.

Triglochin

See the next.

pa'-o-gûmp.

Arrow-grass.

maritimum

L.

pa'-o-gûm-pi. Aquilegia cœruleaJames. Columbine. Cf. pa-wa-gûm-pi. pa'-o-ka; pa-o'-ka. Salicornia herbacea L. Samphire: Glasswort. pa'-oñ-gop. See pa'oñ-gûp. pa'-oñ-gûp. Hypnum sp. Moss. Polytrichum juniperinum. Moss. See tim'-pin-pa-bo-i-ûp and pi'-a-pa-oñ-gûp. pa-otq'-ga. Aster adscendens Lindl. Starwort: Aster. pa'-ra-tĭ-tsĭn-bo-gop. ?Argemone mexicana var. hispida Gray. Prickly Poppy. Cf. toi'-van-bo-gop. Probably the full form of pa'tsi-na-bo-gop, which see. pa-o-tim-bitc. cicutifoliumSiumGmelin. Water Parsnip. pa'-ru-sip. pa'-sa-gwip; pa'-sa-gwûp. Cystopteris fragilis Bernh. Fern. pa'-tsĭ-na-bo-gop. Cnicus sp. Plumed Thistle. pa'-sa-gwo-na-komp. See pa'-sa-koi-na-komp. pa'-sa-koi-na-komp. Malvastrum coccineum Gray. False Mallow. Cf. koi'-na-komp. pa'-sa-ton-dzĭp.

Hedysarum mackenzii Richard.

pa'-sa-wi-gûmp.

Potentilla glandulosa Lindl. Five Finger.

pa'-sa-wi-gûn-dza.

Heuchera rubescens Torr. and other species. Alum Root.

pa'-sa-pa-oñ-gop.

Glaux maritimum L. Sea Milkwort.

pa'-sa-wu-mûts.

Stipa viridula Trin. Feather Grass.

pa'-si-hwu.

See pa'sa-hwu-mûts.

pa'-si-go.

See pa'-si-gwĭp.

pa'-si-gwĭp (pa'-si-go-ûp).

Osmorrhiza nuda Torr. Sweet Cicely.

?Glycosma occidentalis Nutt. pa'-ûm-ûp.

See pa'-ma-wûp.

pa'-ûñ-ga.

Erigeron macranthus Nutt. Fleabane.

Cf. kai'-si-na-bo-gop.

pau'-wats.

See pa'hwats.

pa'-wa-pi.

Juniperus virginiana L. Red Cedar.

pa'-wa-sip; pa'-wa-tsip. pa'-yam-pa; pa'-yamp.

pi'-a-da-bi-wûmp.

See pi'-a-ta-bi-wûmp.

pi'a-ga.

?Eriogonum inflatum Torr.

Probably not specific.

pi'-a-koi-na-komp.

Sphæralcea emoryi Torr.

pi'-a-kĕn-dzĭp.

Wyethia amplexicaulis Nutt.

pi'-a-ku-hwa.

Mentzelia lævicaulis Torr. and Gray.

pi'-a-mo-a-gûp.

See pi'-a-mo-ha-gûp.

pi'-a-mo-ho-gûp.

pi'-a-näñk.

Mitella trifida Graham. Mitrewort.

pi'-a-pa-bu-ĭp.

Sagittaria variabilis Engelm.

Arrow-head.

See pa'-bo-bu-ĭp.

pi'-a-pa-oñ-gop.

Polytrichum juniperinum. Moss. pi'-a-pa-otq-ga.

Helianthella uniflora Torr. and Grav.

Cf. mu'ha-kûmp.

pi'-a-koi-na.

Arabis retrofracta Gray.

pi'-a-po-gop.

Glycosma occidentalis Nutt.

pi'-a-pa-wa-gûmp.

pi'-a-pa-oñ-gop-pai-dja-rûmp.

Polygonum amphibium L.

pi'-a-ra-dûm-bĭp.

Lonicera utahensis Watson and involucrata Banks. Woodbine.

pi'-a-ba-rûm-bĭp.

See pi'-a-ra-dûm-bĭp.

pi'-a-si-bo-i-nûp.

Same as the following.

pi'-a-si-bo-i-ûp.

Arabis retrofracta Gray. Rock Cress.

pi'-ats.

pi'-a-ta-bi-wûmp.

Orthocarpus linearifolius Benth. Cf. ta'-bi-wûmp.

pi'-a-so-nĭp.

pi'-a-wa-da.

Artemisia biennis Willd.

Cf. on'-tĭm-pi-a-wa and wa'-da.

pĭ'-ga-dĭt.

See pĭ'ga-yu-gĭp.

pĭ'-ga-yu-gĭp.

Agropyrum repens Beauv. Blue-joint.

pĭ'-tca-gwa-nûp.

Sphæralcea rivularis Torr.

pi'-wa-nûp.

?Asclepidiora decumbens Gray. pi'-o-ra.

A rather indefinite name applied loosely to Hedysarum and other tall or chimbing Leguminosæ.

pi'-a-ka-gwa-nûp.

Stachys palustris L. Wound Wort.

Only occasionally so designated, being commonly known as toi'-ya-ba-gwa-nûp, which see.

po'-go.

See po'-gwo.

po'-go-nûp.

Currant (general term); berry. Ribes aureum Pursh. Missouri Currant.

po'-gûmp.

See po'-go-nûp.

po'-gwo.

Cnicus eatoni Gray. Thistle.

po'-ho-bi.

Artemisia tridentata Nutt. Sage-brush.

po'-ho-ru.

Aphyllon fasciculatum Torr. and Gray. Cancer-root.

poi'-na.

See poi'-ya.

poi'-ya.

Sisymbrium canescens Nutt. Hedge Mustard.

po'-nak.

See poi'-ya

pu'-i-ba-u.

Nicotiana attenuata Torr. Tobacco.

pu'-i-dĭ-kûp.

Medicago sativa L. Lucern; alfalfa.

pu'-i-dĭ-sas.

Erigeron leiomerus Gray. Fleabane.

?Monardella odoratissima Genth. pu'-i-pa-si-go.

Primula parryi Gray. Primrose.

Cf. toi'-ya-na-ti-bu-da.

puĭ-i-wa-nûp.

Eriogonum brevicaule Nutt. pûñ-go-na-tsu.

A general term applied to a considerable number of plants used as remedies for horses (pûñ'-go, horse, + na'-tsu, medicine). Such are Galium aparine, Lygodesmia, Silene multicaulis, etc.

pu'-i-si-a-ka.

General name for green or growing plants (pu'-i-bĭt,

green, + si'-a-ka, plant, which see).

pûñ-go-ûn-da-mi.

A somewhat general term applied to a number of plants (from $p\hat{u}\tilde{n}$ -go, horse, + $\hat{u}n$, possessive, + da'-mi).

Smilacina amplexicaulis Nutt.
and Triglochin maritimum
L. are among the plants
grouped under this name,
utterly divergent forms
being brought together
upon a basis other than
resemblance to each other.
ri'-a-bi.

Rare for ni'-a-bi, which see. sa'-gû-pi.

Salix amygdaloides Anders., lasiandra Benth., flavescens Nutt. Willow.

sai'-gi-tamp.

Spiranthes romazoffiana Cham. Ladies' Tresses.

saip.

Scirpus lacustris L. var. occidentalis W. Bulrush.

sai'-ya-hyu-gĭn.

Saponaria vaccaria. Soapwort. sa'-na-kün-da.

Eriogonum microthecum Nutt., ovalifolium Nutt., umbellatum Torr., etc.

sa'-na-kint.

See sa'-na-kün-da.

si'-a-ka.

Plant, branch, shoot, etc. si'-bi.

Phlox longifolia Nutt. Sweet William; Phlox.

si'-bo-i-ûp.

Cleome lutea Hook.

si'-bo-i-ûmp.

 $egin{array}{lll} Nasturtium & palustre & DC. & var. \\ & Water-cress. & \end{array}$

si'-bû-pi.

Bigelovia douglasii Gray. Greater Rabbit-brush; Rayless Golden-rod.

Tetradymia canescens DC. var. so'-ho-bi.

Populus angustifolia James. Cottonwood.

si'-hĭp.

See si'-o-pi.

sĭ'-gi.

Leaf.

si'-go.

Calochortus nuttallii Torr. and Gray. Sego.

si'-na-tsu.

sĭñ-gûp.

See sĭñ-gû-pi.

sĭñ'-gû-pi.

Populus tremuloides Michx.

Quaking Aspen.

si'-o-pi.

General name for species of Salix corresponding to the English "willow." The several types of willows, or rather some of them, have in addition more special names. See under Salix in preceding list.

si'-wûmp.

Glyceria distans Wahl. and nervata Trin. Manna Grass.

Cf. also tai'-gwi-bi for the latter.

so'-go-ba-gwĭp.

Bryum sp. Moss.

san'-añ-go-bi.

Abies menziesii Lindl. Balsam. so'-ai-tûmp.

Agaricus. Mushroom.

so'-ko-ri-bo-ûmp.

Bryum sp. (same as preceding).

Moss.

so'-ko-ri-ûmp.

Berberis repens Lindl. Oregon Grape.

so'-nĭp.

General term corresponding to the English "grass."

suñ.

From su'-no, which see.

su'-no.

Atriplex confertifolia Watson.

ta'bĭ-tci-gop.

See ta'-bi-si-go-ûp.

ta'-bi-si-go.

From ta'bi-si-go-ûp, which see. ta'-bi-si-go-ûp,

Zygadenus nuttallii Gray. Poison Sego.

ta'-bi-ci-pomp.

See ta'-bĭ-tci-pomp.

ta'-bi-si-bû-pi.

Bigelovia pulchella Gray. Rabbit Brush.

ta'-bi-tci-pomp.

See ta'bi-si-bû-pi.

ta'-da-bi.

Rhus toxicodendron L. Poison Oak or Ivy.

tai'-gwi-bi.

Glyceria nervata Trin.

Cf. si'-wûmp, also applied in more general way to this plant.

ta'-bi-wûmp.

Orthocarpos linearifolius Benth. Cf. pi'-a-ta-bi-wûmp.

ta'-ka-dĭ-di-a-rûp.

Abronia fragrans Nutt. Sand Puff.

ta'-kan-dĭ-dai-kûp.

See ta'kan-di-dĭ-di-a-gûp.

ta'-kan-dĭ-di-a-gûp.

Erigeron grandiflorus Hook. Fleabane.

ta'-kûm-bu-i.

Polygonum hartwrightii Gray. Cf. pa'-gu-ĭp.

ta'-ni-kûmp.

Arnica cordifolia Hook.

ta'-tsĭp.

Pachystina myrsinites Raf. Box. tci'-cop.

Eurotia lanata Moq. White Sage.

te'-e-pa-ga-sa-wûp.

ti'-a-bi.

Rosa nutkana Presl. Rose.

ti'-a-sa-ton-dzi.

Astragalus utahensis Torr. and Gray. Rattle-weed.

Cf. to'-sa-wu-da.

ti'-ba.

Pine nuts; nuts of *Pinus monophylla*.

ti'-a-tso-nap.

ti'-ba-wa-ra.

Pinus edulis. Piñon Pine.

ti'-ba-wa-na-ma-tsa-mo-gi.

ti'-ba-ûñ-gop.

Pine Cone; cone of *Pinus* monophylla.

ti'-bo-hi.

Taraxacum officinale Weber.

Dandelion.

tĭ'-da-kai-mi-ya.

Vaccinium cæspitosum Michx. Bilberry.

tĭ'-da-pa-wa-gûmp.

Aquilegia cœrulea James. Columbine.

See pa'wa-gûmp.

tĭ'-da-ya-gûp.

Helenium autumnale L. and hoopesii Gray. Sneezeweed.

Cf. mo'ta-qa and toi'ya-mota-qa.

tĭ'-nai-hya.

Cf. tĭm'ai-hya. Mountain Tea. tĭm'-bai-na-tsu.

General name for medicines used in sexual diseases or for plants furnishing such. tim'-bai-wi-gûn-dza.

Parnassia parviflora DC. Grass of Parnassus.

tĭm'-bai-wi-gûn-ta.

See tim'bai-wi-gun-dza.

tĭm'-bi-mo-a-gwa-nûp.

Aplopappus macronema Gray and parryi Gray.

tĭm'-bi-ma.

See tim'bo-ûmp.

tĭm'-pĭn-ba-bu-ip.

See tĭm'pin-pa-bo-i-ûp.

tim-pin-pa-bo-i-ûp.

Polytrichum juniperinum. Moss. Cf. pa'-oñ-gop.

tĭm'-bo-ûmp.

See tim'-pin-tim-bo-i-ûmp.

tĭm'-pĭn-tĭm-bo-i-ûmp.

Spiræa cæspitosa Nutt.

tĭm'-ba-ip.

Heard occasionally for the preceding and applied gen-

erally to various other plants growing on cliffs and over rocks.

tĭm'-pi-sa-gwûp.

Silene acaulis L. Catchfly.

tĭm'-pi-sa-wap.

tĭm'-pĭn-so-kûp.

General name for lichen.

tĭm'-pi-dza-na-kwo.

Senecio, several species, the latex of which was used for preparing chewing-gum. Groundsel.

tĭm'-pĭn-tu-nûmp.

Kalmia glauca Ait. American Laurel.

tĭn'-a-bĭp.

Poa californica Munro. Meadow Grass.

Cf. ni'a-bĭp.

tĭñ'-go-ip.

See tiñ'-gwĭp.

tĭñ'-gwip.

Chamæbatiaria millifolium Maxim.

?Holodiscus discolor var. dumosa.

tĭ'-nai-gop.

Urtica holosericea Nutt. Nettle. tĭ'-sas.

Erigeron glabellus Nutt., var. Fleabane.

tĭ'-so-nĭp.

Alopecurus aristulatus Mx. Foxtail Grass.

tĭn'-tsĭñ-ga.

Cnicus drummondi Gray.
Plumed Thistle.

Cf. also tsĭñ'-ga.

ti'-ûm-pi.

Amelanchier alnifolia Nutt. Service-berry.

ti'-wa-bi-nĭp.

Elymus canadensis L. Wild Rye.

Cf. o'-ro-rop.

ti'-ya-gûp.

Helenium autumnale L. and hoopesii Gray. Sneezeweed. From tǐ'-da-ya-gûp, q. vid.

to'-bai-ba-bi.

Bromus breviaristatus Thurl., etc. Brome Grass.

to'-bai-bi.

See to'-bai-ba-bi.

to'-go-ûn-go-na.

Castilleia parviflora Bong., minor Gray. Indian Paintbrush.

to'-dzûp.

Ferula multifida Gray.

to'-ho-bai-bi.

See to'-bai-ba-bi.

to'-ho-bi.

Same as to'bai-ba-bi, being a shortening of the preceding form.

to'-ho-bi-so-nĭp.

Probably another form for *Bromus*.

toi'-dĭ-sas.

See toi'-ya-dĭ-sas.

to'-ĭmp.

Typha latifolia L. Cat-tail.

toi'-gû-pa-gûnt.

Eriogonum villiflorum.

Plantago eriopoda Torr., patagonica Jacq., etc. toi'-ya-ba-gwa-nûp.

Lophanthus urticifolius Benth.

Dracocephalum parviflorum

Nutt. Dragon-head.

Scutellaria sp. Skullcap.

General term for these closely related labiales, the seeds of all of which were gathered and used for food in the same manner.

toi'-ya-ba-gwo-no-gĭp.

Actæa spicata L. Baneberry.

toi'-ya- a-hwip.

See toi'ya-ba-o-pi.

toi'-ya-ba-o-pi.

Aplopappus suffruticosus Gray, macronema Gray.

toi'-ya-ba-gwa-dzûp.

Hydrophyllum occidentale Gray, capitatum. Waterleaf.

toi'-va-bĭn-da-tsĭp.

Jamesia americana Torr. and Gray.

Symphoricarpos areophilus Gray. Snowberry.

toi'-ya-bĭ-tûm-ba-ga.

Valeriana edulis Nutt.

toi'-va-bi-tûm.

See toi'ya-bi-tûm-ba-ga.

toi'-ya-bo-go-nûp.

toi'-ya-da-tsĭp.

See toi'ya-bi-tûm-ba-ga.

toi'-ya-da-ti-go-ra.

Erigeron glabellus Nutt. Fleabane.

Cf. under Erigeron in preceding list.

toi'-ya-da-ti-bu-da.

?Primula parryi Gray. Primrose.

?Polygonum viviperum L

toi'-ya-tim-ba-dzap.

Arenaria triflora var. obtusa Watson. Sandwort.

toi'-ya-mo-gûp.

See the next word, toi'-ya-mo-ha-gûp.

toi'-ya-mo-ha-gûp.

Anemone multifida Poir. Windflower.

toi'-ya-mo-ta-gomp.

Mertensia alpina Don. Lungwort.

toi'-ya-mu-ti-ga.

Helenium hoopesii Gray. Sneezeweed.

Cf. tĭ'-da-ya-gûp.

toi'-ya-na-bo-gop.

Argemone mexicana var., hispida Gray. Prickly Poppy. toi'-ya-na-ti-bu-da.

See toi'-ya-da-ti-bu-da.

toi'-va-gwa-nûp.

Saxifraga nivalis L. Saxifrage. toi'-ya-o-gwĭp.

Aristida purpurea Nutt.
Triple-awned Grass.

Cf. o'-gwip and yo'-nip.

toi'-ya-dĭ-sas.

Chrysopsis villosa Nutt. Golden Aster.

toi'-ya-ra-ta-boi-ya.

toi'-ya-ro-dzĭp.

Sium cicutifolium Gmelin. Water Parsnip.

toi'-ya-sa-ton-dzi.

toi'ya-ta-son-dzi.

toi'-ya-si-wûmp.

Festuca ovina var., brevifolia Watson. Fescue Grass.

toi'-ya-o-ro-rop.

toi'-ya-so-nip.

Deschampsia cæspitosa Beauv. var. Hair Grass.

toi'-ya-wün-ta-mu-ta-qa.

toi'-ya-wĭ-tûm-ba-ga.

Erythronium grandiflorum Pursh.
Dog-tooth Violet.

The full form is probably toi'-ya-wünt-ûm-ba-ga (toi'-ya-wünt, canyon.) Contrast toi'-ya-bĭ-tûm-ba-ga (toi'-ya-bi, mountain).

toi'-ya-wĭ-tûm-ba.

See toi'-ya-bĭ-tûm-ba-ga, from which this is shortened.

toñ'-gi-cĭp.

Prunus demissa Walpers. Choke-cherry.

Cf. to'-o-nûmp.

ton'-tso.

Trifolium, various species, corresponding in usage precisely, or nearly so, to our English word "clover."

to'-no-pi.

to'-pai-ba-bi.

See to'bai-ba-bi.

to'-pai-bi.

Shortened from to'pai-ba-bi. to'-sa-na-tsu.

A koi'-na-tsu prepared from or consisting of the roots of *Heuchera rubescens* Torr. and related species and of species of *Mitella*, which see in the preceding list. Sometimes applied to the plants themselves.

to'-sa-wu-da.

Astragalus utahensis Torr. and Gray. Rattleweed.

For significance see under this name in the preceding list.

to'-o-nûmp.

Prunus demissa Walpers.
Choke-cherry.
Cf. toñ'-gi-cip.

toi'-ya-wan-go-gip.

**?Ivesia gordonia Torr. and Gray.

toi'-ya-bo-go-nûp.

Ribes oxycanthoides L. Currant. toi'-ya-po-go-nûp.

Same as the preceding.

tsĭ'-gi-tûmp.

Enothera biennis L. Evening Primrose.

tsi'-na.

See tsĭñ'-ga-bo-gop.

tsi'-na-bo-gop.

Cnicus drummondi Gray.
Plumed Thistle.

Cnicus undulatus Gray.

tsĭñ'-ga.

See tsĭñ'-ga-bo-gop.

tsĭñ'-ga-bo-gop.

Same as tsi'na-bo-gop, and the preferable form.

Cnicus drummondi and undulatus Gray. Plumed Thistle.

tsi'-ûmp.

Berries of Rosa californica and fendleri Crepin.

tsi'-o-pi.

Rosa californica and fendleri Crepin. Rose.

tsom'-ba.

Same as tsom'-bai-bi.

tsom'-bai-bi.

Same as tso'-ni-baip.

tso'-ni-baip.

Lithospermum pilosum Nutt. and multiflorum Torr.

tso'-nap.

Same as tso'ni-baip, which see. tso'-hwa.

tu'-go-wa-tsĭp.

Chrysopsis villosa Nutt., etc. Golden Aster.

tu'-go-wi-nûp.

Pentstemon confertus Dougl. var. tu'-hi-nûp.

Cercocarpus parvifolius Nutt. tu'-i.

Urtica sp.

tu'-ku-ba-gûmp.

Delphinium bicolor Nutt. and menziesii DC. Larkspur.

tu'-kwûn-da-mi.

See tu'-kwûn-dau-wi-a.

tu'-kwûn-dau-wi-a.

Rubus leucodermis Dougl.
Raspberry.

tu'na.

Cymopterus montanus Torr. and Gray.

tu'-nam-pi.

Cercocarpus ledifolius Nutt.
Mountain Mahogany.

tu'nûmp.

Same as tu'-nam-pi, which see. tu'-pam-pi.

See tu'-ro-vi-pam-pi.

tu'-ro-pam-pi.

Shortened from tu'-ro-vipam-pi, which see.

tu'-ro-sip.

Ambrosia psilostachya DC. Ragweed.

Iva axilaris Pursh.

tu'-ro-vi-pam-pi.

Rudbeckia occidentalis Nutt. Cone-flower.

tu'-si-gĭp.

Epilobium coloratum Muhl. Willow-herb.

tu'-tom-pi.

A shrubby plant mentioned by Indians, but not identified by the author.

u'-di-ûp.

Betula occidentalis Hook. Birch. u'-gai-gût.

u'-gû-pi.

Beckmannia cruciformis Host. Slough Grass.

u'-i-telb.

See ai'-tcĭb.

u'na-tso-mo-gi.

Humulus lupulus L. Hop.

Cf. wa'-na-na-tso-mo-gi.

u'sa.

Epilobium alpinum L. Willowherb.

u'-gu-dzûp.

Alnus incana Willd. Alder. wa'-bi.

Melica powoides Nutt. Melic Grass.

wa'da.

Suaeda depressa Watson. Seablite.

wa'-don-dzĭp.

Agropyrum repens Beauv. Blue-joint.

See also under Agropyrum in the preceding list.

wai.

Oryzopsis cuspidata Benth.

Mountain Rice.

wa'-da-bu-ip.

Lemna sp. Duckweed.

wai'-ûmp.

Probably full form for wai, but only rarely heard.

wai'-a-na-tsu.

General term for medicines used for burns or for plants producing such.

wa'-na-ma-tsa-mo-gi.

See next word.

wa'-na-na-tsa-mo-gi.

Humulus lupulus L. Hop.

wa'-na-tsi-mu-gi.

See preceding word.

wan'-di-wa-sĭp.

See wan'-di-wa-sûmp.

wan'-di-wa-sûmp.

Epipactis gigantea Dougl.

wañ'-gin-gip.

Chænactis douglasii Hook.

Cf. ko'-si-bo-qûn-tos.

wañ-go-gĭp.

Achillea millefolium L. Yarrow. wa'-nûp.

Humulus lupulus L. Hop. Cf. wa'-na-na-tsa-mo-gi.

wa'-na-gĭnt.

Potentilla fruticosa L. Five-finger.

Cf. wa'-tsi-gint.

wañ'-go.

Pseudotsuga douglasii Carr. Douglas Spruce.

Cf. añ'-go-bi.

wan'-dzi-baip.

Eleocharis palustris R. Br. Spike Rush.

wa'-pi.

Juniperus californica var. utahensis, etc. Cedar; Juniper. wap'-ûm-pi.

Cedar berries; fruit of Juniperus californica var. utahensis.

wa'-si-pĭt.

Silene acaulis L. Catchfly. See also tı̃m'-pi-sa-gwûp.

wa'-tsip.

Bark.

wa'-tsi-gûnt.

Potentilla fruticosa L. Five-finger.

Cf. wa'-na-günt.

wi'-a-kĕn-dzĭp.

Balsamorrhiza hookeri Nutt.

wi'-kûn-dza.

See wi'-gûn-dza.

wi'-gûn-dza.

Heuchera rubescens Torr. Alumroot.

wi'-gon-dzĭp.

?Ranunculus sp.

win'-au-tsaug.

A gum or mucilage prepared from Malvastrum munro-anum and used on the inside of earthen vessels as a filling. Also the name is sometimes applied to the plant itself.

wi'-na-go.

Fritillaria pudica Spreng. Lily; Yellow Bell; Buttercup.

wi'-tcûp.

Trisetum subspicatum Beauv.

v/Y-sa-po-go-nûp.

Ribes divaricatum Dougl.
Currant.

wĭ'-sa-po-gûmp.

Same as wi'sa-po-go-nûp, which see.

wi'-djan-gwo-djop.

Arenaria triflora var. obtusa Watson. Sandwort.

Cf. toi'yan-tĭm-ba-dzap.

wu'-da-wa-nûp.

Apocynum androsaemifolium L. Indian Hemp; Dogbane.

wu'-si-bĭn-gĭnt.

Phacelia menziesii Torr. and circinata Jacq.

wu'-si-gûnt.

Same as wu'-sĭ-bĭñ-gĭnt, which see.

wu'-da-ûn-dĭ-kûp.

A somewhat general term applied to a number of plants which are eaten or the fruit of which is eaten by bear. Such are Lonicera, Smilacina, etc., which, of course, have in addition their more special designations. See under the respective names in the preceding list.

wu'-bu-i-nûp.

Lepidium intermedium Gray. Peppergrass.

wu'-pi.

Wood, woody plant, stick, etc. Cf. o'pi.

yamp.

See yam'-pa.

yam'-pa.

Carum gairdneri Benth. and Hook.

yam'-pa-gwa-nûp.

Erodium cicutarium L'Her. Alfilaria; Crane's-bill.

yo'-go-ti-wi-ya.

Silene menziesii Hook. Catch-fly.

yo'-go-ti-wi-yu.

See the preceding word.

yo'-nĭp.

Aristida purpurea Nutt. Tripleawned Grass.

yo'-ni-co-nip.

See yo'-ni-so-nip.

yo'-ni-so-nĭp.

?Deschampsia danthonioides Munro. ?Hair Grass.

Glyceria distans Wahl. Manna Grass.

Festuca tenella Willd.